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MODERN  
THERAPEUTICS:

A COMPENDIUM OF  
RECENT FORMULÆ, APPROVED TREATMENT,  
AND  
SPECIFIC METHODS  
IN  
MEDICINE AND SURGERY,

WITH AN APPENDIX ON HYPODERMIC MEDICATION, INHALATION,  
AERATION, AND OTHER REMEDIAL AGENTS AND THERA-  
PEUTIC METHODS, OF RECENT INTRODUCTION.

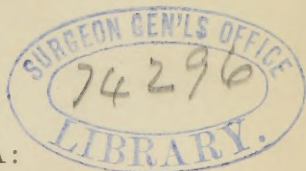
✓  
BY GEORGE H. NAPHEYS, A.M., M.D., ETC.

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Fourth Edition, Re-written and Enlarged.

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PHILADELPHIA:  
D. G. BRINTON, 115 SOUTH SEVENTH STREET.  
1877.





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## EDITOR'S PREFACE.

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When this work was somewhat more than one-third through the press, the author was attacked by the malady which brought his life and labors to their close. The MSS. were transferred by his representatives to the present editor, with the request that the publication be completed. This has now been done, in general conformity with the author's plan, as stated in his Preface. Some incompleteness, however, in the references and résumés will be noted in the later pages. The author had not entirely carried out his arrangement in this portion of his manuscript, and although the editor has filled up the lacunæ to some extent, he has been obliged to defer the completion of the scheme until another edition, which, he hopes, will in no long time be demanded.

The unusual popularity of the previous editions encourages this hope. In fact, this work stands alone, of its kind, in medical literature. It presents the Art of Therapeutics in all its aspects, and divested of that barren theorizing which has been its bane. Acquainting the reader with the exact treatment of each disease by living clinical teachers and careful practitioners of several countries, it vastly widens his therapeutic resources, prevents him from becoming a routinist, and inspires him with confidence in the remedies he employs.

So far from leading him to become a mere *formularum præscriptor*, the diversity it exhibits teaches him independence of thought; while the care with which the indications calling for particular remedies or combinations are given, awakens and instructs his powers of clinical observation.

But this remark is not intended to belittle the value of definite



formulæ. The author has most wisely preserved these whenever possible. By skilful combinations, nauseous articles are rendered palatable, which is often no slight matter; ingredients of facile decomposition may be given permanence; the labors of the pharmacist are lightened; and, more than all, the efficiency of pharmaceutical products may be very largely increased.

The intelligent recognition of the last-mentioned fact may be claimed as one of the later advances of medical science. The polypharmacy of our forefathers in the profession has disappeared, not giving way to any nonsensical "law of the single remedy," as Homœopathy advocates, but to a clear insight into the *synergic* action of remedies, by virtue of which a judicious combination of several drugs acts in a given direction more forcibly than any one of them singly. It is needless here to quote instances of this truth. They may be found in abundance in the pages which follow. If studied and applied in daily professional practice, they will convince the most doubting that the nihilism in therapeutics, which is so prevalent to-day, comes either from an ignorance of the correct methods of prescribing drugs, or from a pursuit of that *ignis fatuus*, "physiological therapeutics."

D. G. B.



## AUTHOR'S PREFACE.

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This volume differs from ordinary works on the practice of Medicine, in being devoted *exclusively* to Practice; from works on Materia Medica, in treating only of Therapeutics; and from a Formulary, in that it is not a mere collection of prescriptions, but aims at a systematic analysis of all current and applied means of combating disease.

The contents of the book are nearly doubled in this edition. Many diseases omitted in the previous editions here find a place. The sections on Diseases of Women and Diseases of Children, as well as many other parts, are greatly enlarged. The division on Surgical Therapeutics is new. It does not embrace *operations* nor *apparatus*, but the application of articles in the materia medica to surgical practice.

As I have received a portion of the matter here presented directly from the authors, in this country and in Europe, this much of the volume will not be found elsewhere. When I have drawn from medical periodicals, the name and date of the journal are given in the text. But where a monograph or systematic treatise has been the source of information, the name of the author and his residence are given, and by consulting the index to his works the reader can readily verify the quotation or abstract of his views.

Formulae from foreign sources have generally been rendered into the terms of the United States *Pharmacopœia*, equivalent officinal preparations replacing those unknown to the shelves of our apothecaries. A formula that cannot be filled by the druggist is useless to the physician, or, at least, puts him to the labor of translating it into familiar ingredients. The new nomenclature is adopted, the



salts of the alkaline metals being designated as of the particular metal, and not of its oxide, etc.

The diseases are arranged in alphabetical order under the general nosological division to which they belong. The treatment of each is first stated as given by different practitioners, then by various hospitals, after which follows a résumé of the more important remedies employed in its management. An asterisk \* designates those especially commended.

American, English and Continental practitioners are quoted in nearly equal numbers. As I have not attempted to mention every remedy employed for a disease, but only such as have some good authority, or else a very plausible theory for their use, so I have endeavored to select as authorities either practitioners of acknowledged reputation, or else such who have sustained their therapeutic suggestions by sound reasoning and sufficient evidence.



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# MODERN THERAPEUTICS.

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## PART I.

### Medical Therapeutics.

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#### I. DISEASES OF THE NERVOUS SYSTEM.

*Apoplexy—Chorea—Delirium Tremens—Epilepsy—Headache—Hemicrania—Hypochondriasis—Hysteria—Insolation—Insomnia—Meningitis, Acute—Neuralgia—Paralysis—Progressive Locomotor Ataxia—Sciatica—Tetanus—Tic Douloureux—Vertigo.*

#### APOPLEXY.

The treatment of this disease of the nervous system is given as follows by

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

Active purgatives generally do good after the patient has in some degree revived, by relieving the head and improving the secretions of the alimentary canal.

1. R.	Hydrargyri chloridi mitis,	gr. v	
	Pulveris jalapæ compositi,	ʒj.	M.

This powder given as soon as the patient can swallow, and followed up by an ounce of *sulphate of magnesium* in *camphor water* every four or six hours, and continued according to its effects, for a greater or less length of time, is the best method of promoting re-



covery, and preventing relapse in cases associated with simple plethora. If the attack be in consequence of hypertrophy of the heart, without valvular disease, then eight or ten minims of *tincture of digitalis* may be added to each dose of the purgative medicine. If the patient cannot swallow, three or four drops of *croton oil* should be put on the back part of the tongue, and *stimulating enemata* thrown up the rectum.

The following enemata are recommended :—

- |    |    |                       |    |           |    |
|----|----|-----------------------|----|-----------|----|
| 2. | R. | Olei ricini,          |    |           |    |
|    |    | Olei terebinthinæ,    | aa | f. ʒi ss  |    |
|    |    | Tincturæ assafoetidæ, |    | f. ʒij    |    |
|    |    | Decocti avenæ,        |    | f. ʒ xij. | M. |

To be thrown up by means of a long stomach-pump tube.

- |    |    |                    |    |         |    |
|----|----|--------------------|----|---------|----|
| 3. | R. | Olei ricini,       |    |         |    |
|    |    | Olei terebinthinæ, | aa | f. ʒj   |    |
|    |    | Olei tigllii,      |    | m. vj   |    |
|    |    | Decocti avenæ,     |    | f. ʒiv. | M. |

For an enema.

All employment of *emetics* is to be condemned. *Blood-letting* may be resorted to, if the patient be seen during the fit, if the tendency to death is by coma, if the pulse be full, or hard, or thrilling, if the vessels of the neck be congested, the heat of the scalp increased, if the face be full and turgid, and especially if the action of the heart be vigorous, its sounds normal, and the heat of the skin preserved. Ten ounces will generally be sufficient, if taken at the first outset of the attack; but if the pulse does not improve, and the symptoms remain unrelieved, sixteen to twenty ounces may be taken. The head and shoulders should be raised while the blood is flowing. When the pulse is small and slow, feeble or almost imperceptible, the skin cold and clammy, with a tendency to death by syncope, then no advantage is to be gained by the abstraction of blood. Blood-letting is, therefore, contra-indicated in anæmia, aortic valvular disease, and in cases commencing with syncope. If the blood-letting be not followed by some degree of consciousness, it may be inferred that the amount of blood effused is considerable, and that the patient, in all probability, will not recover. Still, an additional chance may be given by applying to the head *cold cloths*, or *crushed ice* in a bladder, *leeches* to the temples, and *mustard cataplasms* to the feet; also by placing a drop or two of *croton oil* on the tongue, and by throwing up a *cathartic enema* of castor oil or other purgative.



The *diet* should be low until all apprehension of a relapse is past. It should be limited to milk, boiled vegetables, light puddings and fish. At no subsequent period should a full animal diet or undiluted wines be indulged in. At the same time, the irritability of the system and the heart's action must not be increased by ordering too lowering a regimen.

J. HUGHLINGS JACKSON, M. D., LONDON.

There is, unfortunately, little to be done. The chief thing is to keep the patient quiet. Two drops of *croton oil* should be put on the tongue and the urine drawn off, if it do not pass freely without help. The application of blisters to the back of the neck, or of mustard plasters to the calves of the legs, is a common practice, with no evidence to show that these applications are of service. Still, in certain cases of chronic cerebral disease, blisters relieve the patient of severe pain in the head; and it is not possible to deny that they may be of service when the circulation of the brain is quickly disturbed after a clot. Were our author to use blisters, which he never does, he would only employ them where there is secondary disturbance of the circulation. It is hard to believe that mustard plasters to the calves of the legs can be of any service or disservice. Dr. JACKSON never prescribes any medicine, except *croton oil*, by the mouth.

If the patient is found in, or has passed into, a condition in which the face is flushed, the temperature above 100, the veins prominent, and the respiration and circulation largely disturbed, treatment, beyond, perhaps, purgatives, is of little use. If, however, the pulse be not very rapid, little more than 100, and if it and the respiration be regular, it is not unreasonable to think that the system may be relieved—though the ultimate size of the clot may not be influenced—by *bleeding*. The practice of bleeding in cerebral hemorrhage, deprecated by TROUSSEAU and TODD, must be exceeding rare in England, as in the whole course of Dr. JACKSON's life he has seen but one person bled for cerebral hemorrhage. If the pulse be very high, 120, 130 or 150, or if it be weak, venesection must not be thought of.

This is about all of the little that can be done for patients who are in the apoplectic condition. When this condition is passed, we are practically unable to help in the immediate difficulty of infusion of blood in nervous tissue. We have still, as in many other



diseases, to improve the general health. The proper care of a patient who has a clot of blood in his brain, and who is liable to have more effused, consists in attending to his diet, excretions, sleep and exercise. Yet there is nothing in this peculiar to the treatment of cerebral hemorrhage. For the immediate lesion, blood in nervous tissue, our author knows of no direct treatment.

#### PROF. PAJOT, FACULTÉ DE MÉDECINE DE PARIS.

According to the age and strength of the subject, *bleed*, or apply *leeches* to the anus or behind the ears. Repeated and energetic *counter-irritants* should be applied, from place to place, along the limb. A purgative *enema* is often of great benefit. The head should be kept raised, and all constriction of the circulation carefully guarded against. *Cold compresses* of water, or water and vinegar, may be applied to the head, or even a bladder half filled with *ice*, which should be withdrawn at intervals.

#### RÉSUMÉ OF REMEDIES.

*Acidum Arseniosum* is of benefit in strong plethoric subjects with a tendency to apoplectic congestion, but is not applicable to old weakly persons. It is supposed to act by reducing the excess of the red globules of the blood.

*Aloes*. Aloetic purgatives are frequently indicated and often prove beneficial.

*Colocynthis*. In full doses, repeated until it operates freely, colocynth is useful as a powerful cathartic and derivative.

\**Hydrargyri Chloridum Corrosivum*. Dr. HEADLAND recommends for the threatenings of apoplexy in old age (*e. g.*, vertigo, confusion of ideas and general embarrassment of the mental faculties) corrosive sublimate in doses of gr.  $\frac{3}{4}$  in solution, three times a day, for three or four weeks.

*Hydrargyri Chloridum Mite*. Administered as recommended by Dr. J. CORLAND (grs. x-xv, mixed with a few grains of gamboge, rubbed up with butter, and placed at the root of the tongue), calomel, although a speedy and effectual purge, is not unattended with danger. Alarming pyalism has followed this treatment.

*Oleum Terebinthinæ* is used both externally and internally. A full dose with an equal quantity of castor-oil, acts, when the patient can swallow, as a useful purgative.

\* *Oleum Tiglii* is peculiarly adapted as a purgative, derivative and revulsive in apoplexy, from the readiness with which it may be administered, by being simply placed at the back of the tongue.

*Potassii Iodidum* has been recommended in cerebral apoplexy, on account of its eliminative power, after the acute symptoms have subsided.

*Sinapis*. In cases of apoplexy from over distention of the stomach, mustard, in doses of a tablespoonful or less in a tumbler of warm water, is a good and quick emetic, which, by removing the exciting cause, is of essential benefit.

*Strychnia*. Dr. MARSHALL HALL has derived great benefit from the use of ace-



tate of strychnia in the threatenings of apoplexy. He advises the following formula :—

4.	R. Strychniæ acetatis,	gr. j	
	Acidi acetici,	℥.xx	
	Alcoholis,	f.ʒij	
	Aquæ,	f.ʒvj.	M.

Dose, ten drops, combined with a rigid system of mental discipline, diet, etc.

*Blood-letting* is no longer the routine practice in apoplexy. It is now generally recognized that there is less danger in not bleeding at all than in taking blood in doubtful cases, in which there may be some of the indications for bleeding.

The *contra-indications* of bleeding in apoplexy are an age over sixty; a feeble, very frequent, intermitting, slow or large pulse, or one inclined to double beat; a respiration labored and accompanied with cold perspiration; great mobility of the nervous system, with weak muscles, whether the body be thin or corpulent; an attack soon after a full meal, or after great mental or bodily fatigue.

The *indications* for bleeding are a quick, wiry, resisting pulse, flushed countenance; warm perspirations; noisy breathing; a tendency to spasmodic muscular contraction; and an age under sixty.

\* *Diffusible Stimulants* may be given with advantage, particularly when the pulse has a double beat, in atonic cases where bleeding is contra-indicated. *Aqua ammoniæ* is one of the best of these; ℥. xij–xv may be administered in water, and the vapor also applied to the nostrils. Or f.ʒ ss–j of the *aromatic spirit of ammonia* may be given in water or camphor mixture. Or grs. v of the carbonate of ammonium may be ordered.

*Enemata.* Terebinthinate and other enemata often afford relief, not only by removing scybala, but by their powerful revulsive action. (F. 2, 3.)

#### EXTERNAL REMEDIES.

*Counter-irritation.* *Capsicum cataplasms* to the feet are powerful and excellent revulsives, which will, however, cause vesication if kept on too long. *Sinapisms* to which have been added powdered capsicum, or oil of turpentine, may, in most instances, be applied with evident benefit to the soles of the feet and the inner parts of the calves and thighs. *Blisters* applied to the calves of the legs and sometimes to the nape of the neck, are of benefit in *simple* or "*serous*" apoplexy, but of little advantage in *sanguineous* apoplexy. An open blister at the nape of the neck (or better, a seton or issue there) is often very useful when there is a tendency to apoplexy. *Turpentine stupes* to the extremities are frequently productive of benefit.

*Ice* applied to the head while the feet are immersed in hot water, is sometimes productive of benefit, but must be employed with great caution in debilitated or old subjects.

\* *Leeches.* In threatened apoplexy arising from the suppression of a habitual discharge, as from piles, leeches applied to the verge of the anus often afford prompt relief. If the threatened attack arise from suppression of the menses, the leeches should be applied to the inner side of the thighs. Sir HENRY HOLLAND states that he knows of no mode in which a given quantity of blood can be removed with equal good effects. Leeches to the verge of the anus give more immediate benefit than three times the number to the temples or elsewhere.



## CHOREA.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

The indications of cure are: 1. To remove, if possible, all morbid states of the body which may tend to aggravate the disease, such as constipation, anæmia, amenorrhœa, worms. 2. By well regulated purgative medicines to subdue any cerebral congestion. 3. To sustain the strength and improve the vigor of the nervous system by tonic and stimulant medicines, by food and by the cold bath.

5. R. Camphoræ,	℥v	
Syrupi,	q. s.	M.

Divide into 20 pills. One three times a day. Useful after discharges have become healthy by the action of the purgatives.

6. R. Spiritus ætheris nitrosi,	f.℥j	
Aquæ camphoræ,	f.℥ij.	M.

Tablespoonful three times a day.

Many young women, who attribute the attack to fright, get well under this treatment.

G. H. BARLOW, M. D., LONDON.

In ordinary cases the exhibition of purgatives to keep the bowels freely open, and the *sulphate of zinc*, in doses gradually increased from gr. j-xij-xv-xx, or even more, will effect a cure; when, however, the sulphate has been used in these large doses, its sudden discontinuance seems to be felt by the system, and a return of the symptoms ensues; the best rule, therefore, for its exhibition is as follows:

The bowels being kept open, the sulphate should be commenced in doses of gr. j, for a child æt. 12 years, and this should be increased by the addition of gr. j to each dose, daily, until it either causes sickness, or there is an obvious diminution of the choreal movements. In the former case, the dose should be diminished by at least one-half, and so continued for several days, with a view of establishing a tolerance; but if, on the other hand, there be marked improvement, it should be no further increased, but continued without alteration until either the improvement ceases—in which case it should be again gradually increased—or the disease has altogether subsided. When the latter is the case, the dose should be diminished day by day, rather than discontinued suddenly, as



by following the former course, we have less reason to dread a relapse. When anæmia is present, *iron* has more control over the disease than zinc.

PROF. BOUCHUT, PARIS.

In the treatment of chorea, Dr. BOUCHUT prescribes *chloral*, two and a half scruples in the course of the day. During the sleep thus provoked no choreic movements are observed. Our author affirms that chloral carefully prepared may be administered to children of from twelve to fifteen years, in doses of gr. xxx- $\vartheta$  iv, repeated daily during ten or fifteen days, without any bad results.

THOMAS KING CHAMBERS, M. D., ETC., LONDON.

7. R. *Liquoris potassii arsenitis*,  $\mathfrak{m}_{\vee}$   
 Thrice daily; to be increased to  $\mathfrak{m}_{xvj}$ .  
 Also *cod liver oil* and *iron*, if indicated by the general condition.

Injudicious management of patients afflicted with chorea frequently protracts the case. One of the most common forms of injudicious management is the fixing of the attention of patients upon their infirmity, by telling them how bad they are, offering unnecessary help, etc. They should be encouraged to make every exertion to direct the movements of the limbs; as by slow walking to music, carrying trays and crockery, and other things that demand care. In order that their attention may be withdrawn from their deficiencies, looking glasses and the distressing sight of other choreics should be avoided. They should be got away from home as soon as possible. Sent under the care of a judicious person to the seaside, or anywhere else for an excuse, children often recover rapidly; whereas, had they remained at home, they would have continually relapsed.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

8. R. *Zinci valerianatis*,  $\vartheta_{ij}$   
*Cinchoniæ sulphatis*,  $\vartheta_j$ . M.  
 For 20 pills; one thrice daily.

The *Bromide of Iron* has lately been employed by our author with excellent effects. It should be given in increasing doses, beginning with never less than five grains for a child, and running up the dose rapidly to twenty grains three times a day.

9. R. *Cupri ammoniati*, gr.  $\frac{1}{4}$   
 In pill thrice daily; to be gradually increased to gr. j.



10. R. Extracti cimicifugæ fluidi, gtt.xx.  
For one dose, three times a day.

THOMAS HILLIER, M. D., LONDON.

11. R. Liquoris potassii arsenitis, m.ij  
Potassii bicarbonatis, gr.iiij  
Potassii iodidi, gr.ij  
Aquæ camphoræ, f.ʒss. M.

For one dose, thrice daily, to children aged five, for aggravated chorea, attended with severe pains in the limbs, and rheumatic persistent swellings.

*Arsenic* in full doses is a valuable remedy in a fair proportion of cases, but in some instances it entirely fails. *Iodide of potassium* is useful when the patient is subject to chronic rheumatism.

Occasionally purgatives and tonics, especially *iron*, are attended with much success. *Strychnia*, so highly recommended by TROUSSEAU, seems, to our author, to be highly injurious in the acuter stages of the disease; in the more chronic form, and where there is a tendency to paralysis, it is of service. Iron and strychnia may be combined thus:—

12. R. Strychniæ, gr.½  
Vini ferri, f.ʒiv. M.

A dessertspoonful thrice daily, to a child ten years of age.

Narcotics, such as opium, belladonna, cannabis indica, or conium, are of little or no use. Antispasmodics, such as valerian and assafoetida, are also useless.

Our author has seen good results from the employment of *baths of sulphuret of potassium*:—

13. R. Potassii sulphureti, ʒiv  
Aquæ (90° F.), C.xxx.

For a bath; the patient to remain in it for an hour daily.

This bath is also recommended by Dr. FELIX VON NIEMEYER, when there is anæmia.

*Gymnastic exercises*, shampooing and passive movements are of service. As many muscles as possible should be exercised, without fatiguing any of them. *Shower baths* are useful in the latter stages, when the patient is not timid, or too much excited by them.

Dr. NIEMEYER quotes *Benedikt*, who declares that out of more than twenty cases of chorea, treated by him by the *constant galvanic current*, not one has failed to recover. The current which he employs is just strong enough for the patient to feel it distinct-



ly, and he applies it along the spine, the patient standing erect. Painful currents aggravate the symptoms.

J. W. OGLE, M. D., LONDON.

14. R. Pulveris physostigmatis,  $\mathfrak{zj}$   
Alcoholis,  $\mathfrak{f}\mathfrak{z}\mathfrak{j}$ . M.

Begin with twenty minims, thrice daily, and increase, by ten minims a dose, to  $\mathfrak{f}\mathfrak{z}\mathfrak{j}$ . Our author reports several cases treated in this manner successfully.

C. B. RADCLIFFE, M. D., LONDON.

Our author, though he has great faith in the efficacy of *arsenic* in chorea, has been obliged to discontinue it in a number of cases, on account of the gastric disturbance it produced. He, therefore, resorted to its use hypodermically and endermically, with favorable results.

*Hypodermically*, he employs Fowler's solution, diluted with an equal part of water, in doses of  $\mathfrak{mij}$  per day, gradually increased in about two months' time to  $\mathfrak{m}\mathfrak{xiv}$ .

*Endermically*, he advises:—

15. R. Liquoris potassii arsenitis,  $\mathfrak{m}\mathfrak{xv}\text{--}\mathfrak{xx}$ . M.

To be dropped upon lint moistened with water and applied, covered with oil silk, night and morning, to a raw blistered surface.

This treatment gives rise to much local irritation, and has generally, on this account, to be suspended every six or seven days.

PROF. O. REVEIL, M. D., PARIS.

16. R. Extracti hyoscyami,  
Zinci valerianatis,  $\mathfrak{aa}$ .  $\mathfrak{zss}$   
Bismuthi subnitratiss,  $\mathfrak{z}\mathfrak{j}$ . M.

Divide into 40 pills. Three or four a day.

17. R. Extracti hyoscyami,  $\mathfrak{zss}$   
Ferri valerianatis,  $\mathfrak{z}\mathfrak{j}$ . M.

Divide into 40 pills. One thrice daily in the chorea of chlorotic patients.

18. R. Valerianæ pulveris,  $\mathfrak{ðij}$   
Belladonnæ radiceis pulveris,  $\mathfrak{gr}\mathfrak{.ij}$   
Castorei pulveris,  $\mathfrak{gr}\mathfrak{.iv}$   
Sacchari,  $\mathfrak{ziss}$ . M.

Divide into 20 powders. One five times a day.

DR. H. ROYER, FRANCE.

19. R. Sodii arseniatis,  $\mathfrak{gr}\mathfrak{.j}$   
Syrupi acaciæ,  $\mathfrak{f}\mathfrak{z}\mathfrak{iv}$ . M.

Dessertspoonful thrice daily.







with tonics. Mental excitement should be guarded against, and nutritious food and exercise in the fresh air insisted upon.

PROF. TROUSSEAU, PARIS.

23. R. Strychniæ sulphatis, gr. j.  
Syrupi, f. ʒiijss. M.

A teaspoonful thrice daily; the dose to be gradually increased until itching of the scalp and slight stiffness of the masseter muscles are observable.

This remedy must be employed with caution.

JAMES TURNBULL, M. D., LIVERPOOL.

24. R. Anilinis sulphatis, ʒss.  
Divide into 20 powders, one to be taken three times a day.

The sulphate of aniline has also been given in as large doses as three grains every third hour. (*Half Yearly Compendium of Medical Science*, January, 1869). It is a white powder, easily taken.

M. WENZ, M. D., DORSBACH.

*Local anæsthetization* of the skin over the spine has been employed with success in chorea. RICHARDSON'S apparatus is used, with from fifteen to thirty drachms of ether, slowly traversing, once a day, the whole length of the spinal column. (*Aerytliches Literaturblatt*, July 7th, 1871).

HOSPITAL FOR SICK CHILDREN, LONDON.

A large number of cases of chorea have been treated (*The Lancet*, October 21st, 1871) with gradually increasing doses of *sulphate of zinc* at this hospital. In no single case was its use unattended with some advantage, for those patients who did not entirely recover on sulphate of zinc only, appeared to derive considerable benefit from it. In some cases, recovery followed its exhibition with remarkable rapidity, and in others, it succeeded after the failure of many other remedies. The tolerance of the drug which may be established in what would appear to be decidedly emetic doses, is well shown in every case. The mode of administration in this hospital is as follows:—

25. R. Zinci sulphatis, gr. viij-xvj  
Aquæ, f. ʒiv. M.

A tablespoonful three or four times a day, *after a meal*.



Occasionally to this is added, in anæmic patients, a grain or two grains of *sulphate of iron*.

The quantity of zinc is then increased by the addition of a grain every day, or every other day, until either the choreic movements have very decidedly diminished, or until the medicine has caused excessive sickness, when either the quantity is gradually lessened or its use is at once discontinued.

As regards diet and confinement to bed, the children have usually been kept recumbent, and fed on pounded meat, or beef-tea and milk, during the earlier stages of the treatment; but as the irregular movements decreased, and without reference to the quantity of zinc then taken, they have been put upon meat diet and allowed to get up. Stimulants, too, have always been allowed in those cases which appeared to require them. One fact has often been noticed—namely, that if no other treatment be adopted than mere confinement to bed, the choreic movements will often frequently diminish in a marked degree during the first week or ten days, after which no further improvement takes place.

Whether the sulphate of zinc acts as a nervine tonic, or whether, as Dr. WEST has expressed his opinion, in his lectures at the College of Physicians, it may exert “a specific power over chorea,” is a question which still awaits decision.

#### HÔPITAL DES ENFANTS, PARIS.

The means of treating chorea more particularly employed at this hospital, are the *tartar emetic* plan advocated by GILLETTE, and still employed by ROGER; *gymnastics* advocated by BLACHE; and *sulphurous baths*. The tartar emetic plan is this: Three days' treatment: during the first day, 3 to 6 grains of the remedy (according to age); during the second, 5 to 10 grains; during the third, 8 to 12 grains; then three days' rest; then three days' treatment; commencing the new series with a dose one grain stronger than in the first series—to end with a third turn, often attended by good effects. Gymnastics are highly beneficial in milder cases of chorea, and in the declining stage of the severer forms. As much may be said of sulphurous baths. The other means employed at the hospital are: *Opium*, *chloroform inhalations*, *salt baths*, *hydrotherapy*, *tonics*, etc. Strychnia, so warmly advocated by Prof. TROUSSEAU, is scarcely ever employed at the Hôpital des Enfants.



## RÉSUMÉ OF REMEDIES.

\**Acidum Arseniosum* is highly recommended by Drs. C. B. RADCLIFFE (F. 15); THOMAS KING CHAMBERS (F. 7); THOMAS HILLIER (F. 11); S. RINGER; ROMBERG, and others.

Dr. BEGBIE, who, in an experience of thirty years, states that he has never known it to fail, prescribed five drops of Fowler's twice daily, after a meal, and added one drop to the dose every day, until the specific effects appeared, when he suspended it for a time.

*Ether* as well as chloroform inhalations are employed. Ether is also applied in spray along the spine.

*Ammonii Carbonas* is favorably mentioned by Dr. C. B. RADCLIFFE.

*Ammonii Valerianas* has been employed with success.

*Anilin*, first employed by Dr. JAMES TURNBULL (F. 24), is also recommended by Dr. F. E. ANSTIE.

*Antimonii et Potassii Tartras* is recommended by Dr. C. WEST in acute cases, given in full doses. Dr. THOMAS HILLIER, however, condemns its use (which he has found inutile), as a depressing remedy, ill adapted to a disease like chorea of weakly, badly-fed children. In French practice it is advocated by GILLETTE and ROGER (p. 28).

*Apomorphia* has had a limited but favorable trial in this disease.

*Argenti Nitras* is much less employed than formerly, before the discovery of other remedies of greater efficiency.

*Assafoetida* has been recommended in cases due to the irritation of intestinal worms.

*Belladonna*, though formerly much employed, is characterized by Dr. THOMAS HILLIER as of "little or no service," and such seems to be the general modern verdict.

*Brominium*, see *Potassii Bromidum*.

*Camphora* is a remedy in which Dr. C. B. RADCLIFFE states he has considerable confidence. He gives it generally, dissolved in cod-liver oil (F. 5, 6, 11).

*Cannabis Indica* has been found useful in some cases. Drs. C. B. RADCLIFFE and THOMAS HILLIER, however, hold it in light estimation. In the sleeplessness attendant upon severe chorea the tincture has proved an excellent hypnotic, in full doses.

*Chloral*, by its hypnotic effect and the consequent ameliorating influence of the sound sleep it produces, has been found of benefit in many cases.

*Chloroformum Purificatum*. Chloroform inhalations are not approved of by Dr. C. B. RADCLIFFE, unless alcoholic stimulants are given before the inhalation. Friction along the course of the spine night and morning, with a liniment composed of equal parts of chloroform and oil of almonds, is beneficial in some cases.

\**Cimicifuga* is highly recommended by many physicians. Prof. A. STILLÉ considers it as one of the most valuable remedies in this disease in purely uncomplicated cases, given in doses of sufficient strength to develop its specific effects. Dr. SYDNEY RINGER, however, finds it only effectual in cases of rheumatic origin, and even in these he prefers arsenic (F. 10, 20).

\**Conium* is very highly lauded by Dr. JOHN HARLEY. He gives the succus in full doses, and asserts that, apart from its effects on the motor centre, conium possesses no direct influence on the circulatory, nutritive or secretory functions, and that its use can be prolonged with safety, it being entirely destitute of any cumulative action.



*Cupri Sulphas* has been thought useful, but is doubtless of less value than conium, and a number of other remedies.

*Cuprum Ammoniatum* once enjoyed a high reputation in the purely nervous form of chorea (F. 9).

\**Ferri Bromidum*. This remedy is much used by Prof. DA COSTA. He was led to it almost accidentally at first, but having now used it for three or four years, his experience from the treatment of a large number of cases giving abundant opportunity to witness its good effects, induces him to like it better than any other one article in the treatment of chorea. It should be given in increasing doses, never starting with less than five grains for a child, and rapidly increasing the dose to twenty, thrice daily. It may be given in plain syrup and water, in the form of a pill, or better, in an effervescing powder. It not only affects the chorea, but also influences the nervous system as a sedative, quieting it and giving the patient rest. It is a valuable agent in treating the incontinence of urine in children, and it was in a case of this kind, complicating chorea, that he first observed its value; being surprised and pleased to see that, as the symptom which led to its administration improved, the chorea also diminished, and soon disappeared. Since then he has used it almost continuously. In answer to the question whether it is the bromine or the iron that benefits, he thinks it is the combination; that neither *alone* accomplishes the result; for it will benefit cases that have previously taken iron without improvement, and, as regards the other bromides, we certainly cannot claim for them any especial value in chorea, as they frequently disappoint us. The remedy occasionally fails, as all remedies sometimes do in this obstinate affection, but it certainly is one of the most valuable agents we possess for the treatment of chorea.

*Ferri Carbonas* is often a useful remedy.

*Ferri Oxidum Hydratum* in large doses (3ss-j increased to ʒiij-iv, every six hours) is highly recommended by Drs. ELLIOTSON and WILKS, conjoined with the use of active purgatives. Children readily take half-drachm doses in treacle. *Ferri et Quiniae Citras* has also been found useful.

*Ferrum Redactum* has been given with benefit (F. 21).

*Hypophosphites* are recommended by Dr. RADCLIFFE, combined with cod-liver oil.

\**Morrhuae Oleum* is very favorably spoken of by Drs. F. E. ANSTIE, C. B. RADCLIFFE and THOMAS HILLIER, in cases of chorea in scrofulous children or those of spare habit. Dr. RADCLIFFE generally gives the oil in conjunction with hypophosphite of soda (gr. v-vij), making the draught containing the hypophosphite the vehicle for the oil. Sometimes he adds carbonate of ammonia to the solution of the hypophosphite; and sometimes dissolves camphor in the cod-liver oil, thus masking the taste of the oil and making the stomach more tolerant of it.

*Moschus* has been employed with benefit, but generally fails.

*Nux Vomica* was employed by ROUGIER in minute doses gradually increased. TROUSSEAU preferred strychniæ sulphas (which see).

*Oleum Terebinthinæ* is sometimes given with the view of obtaining its anthelmintic, purgative and stimulant effects.

*Opium* is tolerated in very large doses in this disease, but Dr. RADCLIFFE's experience is not favorable to its use.

*Phosphorus* is favorably reported upon, by a number of physicians, as a remedy in this disease.

*Physostigma* has been used with success by Drs. HARLEY and OGLE (F. 14).



\**Potassii Sulphuretum*. Drs. HILLIER and VON NIEMEYER recommend baths of this salt (F 13).

*Potassii Bromidum* has proved a failure in the hands of Dr. RAMSKILL, but has been favorably reported upon by a number of French physicians.

*Potassii Iodidum* is considered useful by Dr. HILLIER, in cases of chorea occurring in children subject to chronic rheumatism (F 11). It is also beneficial in patients tainted by syphilis or scrofula.

*Quinæ Sulphas* has been employed in some cases with advantage (F. 21).

\**Santonin* proves often valuable, by disclosing the unsuspected cause of the choreic movements, viz., worms.

*Sodii Arsenias* is useful in those cases in which other arsenical preparations are badly borne (F. 19).

*Stanni Chloridum* has been employed in doses of gr.  $\frac{1}{3}$  to  $\frac{1}{4}$  three times a day in pill, or dissolved in hydrochloric ether. If it increase the symptoms at first, this is regarded as a good omen. If it be followed by gastro-intestinal irritation or dryness of the throat, it must be stopped or the dose lessened.

*Stramonium* is of doubtful efficacy in chorea.

*Strychniæ Sulphas* is recommended by TROUSSEAU (F 23). Its effects should be carefully watched, and its administration confined to obstinate chronic cases (F. 12).

*Valeriana* is recommended by some writers (F. 18).

*Zinci Oxidum* is generally considered inferior to the sulphate of zinc.

\**Zinci Sulphas* is very highly recommended by some physicians (BARLOW, GOLDING BIRD and WEST), but in the hands of others (STONE, HILLIER, etc.), it has not fulfilled expectations (p. 22, F. 21, 25).

*Zinci Valerianas* is employed by Prof. DA COSTA and others (F. 8, 16).

\**Cathartics*, when combined with antispasmodics and tonics, give better results than can be obtained from either singly. The tendency to constipation which exists in this disease requires to be combated by their administration.

#### EXTERNAL REMEDIES.

*Electricity* is principally useful in cases dependent upon deranged catamenial function. Dr. GOLDING BIRD recommends it in the form of sparks taken in the course of the spinal column, every alternate day, for about five minutes at each time.

*Ether Spray*. The application of atomized ether along the spine has proved of service in relieving the spasms, especially in recent cases and those originating in fright. It is said also to be of benefit in chronic cases and in rheumatic chorea (p. 27).

*Frigus*. *Cold Shower Baths* are often valuable adjuncts to other treatment. Dr. HILLIER considers them useful in the later stages of the disease, when the patient is not too timid or too much excited by them; *cold effusions* to the back of the head and neck, each morning, are also useful, but rarely proper in the winter season, and seldom applicable to very feeble and excitable children.

*Hygienic Measures*. Fresh air, change of scene, regulated movements, good food and friction to the spine are of the utmost importance in all cases. Gymnastics are especially recommended in the milder forms of chorea, and during convalescence in the severer cases (p. 28).

*Sulphur Baths* are often of value in conjunction with other remedies (F. 13). They are particularly indicated when there is anæmia.

*Vapor Baths* are also useful.



## DELIRIUM TREMENS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

The two indications for treatment are: 1. The elimination of the poison; 2. The sustenance of the patient during this period. Our author opposes bleeding and the administration of opiates or stimulants in large doses. The strength is to be supported by *nutritious diets*, such as yolk of eggs, soups, beef-tea, and egg-flip, in small quantities and often.

The danger in the first instance is from exhaustion, which is to be met by careful nursing. *Opium* may only be administered in protracted cases, and then never in doses larger than would be considered safe for a healthy person of the age and sex of the patient.

G. H. BARLOW, M. D., LONDON.

- |        |                     |     |        |    |
|--------|---------------------|-----|--------|----|
| 26. R. | Camphoræ,           | *   | gr. ij |    |
|        | Ammonii carbonatis, |     | gr. iv |    |
|        | Tincturæ hyoscyami, |     |        |    |
|        | Tincturæ lupulinæ,  |     |        |    |
|        | Syrupi aurantii,    |     |        |    |
|        | Mucilaginis acaciæ, | āā. | f. 3j. |    |
|        | Aquæ camphoræ,      |     | f. 3j. | M. |
- For one dose, to be taken at bedtime, after the action of an aperient.

J. WARING CURRAN, M. D., DUBLIN.

- |        |                    |       |    |
|--------|--------------------|-------|----|
| 27. R. | Zinci oxidi,       | Ḑj-ij |    |
|        | Confectionis rosæ, | q. s. | M. |
- For 10 pills; one thrice daily.

When morphia or cannabis has done its duty in this disease, the after treatment by oxide of zinc is something to be observed rather than described; the constant dread, restlessness, and disturbed sleep are quickly overcome by the bracing agency of the drug (London *Lancet*, October 24th, 1868). In administering the oxide of zinc, care must be taken not to give it upon an empty stomach, as it produces nausea and a dislike for the medicine.

PROF. R. J. GRAVES, M. D., DUBLIN.

- |        |                                  |           |    |
|--------|----------------------------------|-----------|----|
| 28. R. | Antimonii et potassii tartratis, | gr. iv    |    |
|        | Tincturæ opii,                   | f. 3j     |    |
|        | Camphoræ,                        | gr. xv    |    |
|        | Alcoholis,                       | f. 3ss    |    |
|        | Aquæ destillatæ,                 | f. 3viij. | M. |

Powder the camphor by the aid of the alcohol, add the water, pass through a piece of fine linen and then add the tartar emetic and the laudanum. Give a tablespoonful every two hours.



G. M. JONES, M. D., JERSEY, ENGLAND.

29. R. Tincturæ digitalis, f.℥iss. M.

A tablespoonful (f.℥ss.) to be given at a dose, mixed with a little water. If the first be not sufficient, which, however, it generally proves to be, a second, equally large, is to be administered in about four hours. If a third dose be, in rare instances, required, it should not exceed a dessertspoonful (f.℥ij).

Under the influence of this medication, it is stated, the pulse becomes fuller, stronger, and more regular, the skin grows warm and the cold clammy perspiration ceases. These effects are followed by a sleep of several hours' duration. No action on the kidneys nor any alarming symptoms are observed.

Dr. T. HAWKES TANNER confirms the above statements.

This treatment answers best when the symptoms have assumed a resemblance to those of acute mania, and when there has not been much exhaustion.

DR. LYONS, HARDWICKE HOSPITAL, DUBLIN.

30. R. Pulveris capsici, gr.xx-xxx  
Mellis rosæ, q. s.  
Make a bolus.

For one dose.

This usually suffices to produce quietude and sleep. In exceptional instances, however, a second and even a third dose is required before full tranquillity is secured. The drug is well borne, and quiets the stomach in cases in which irritability and vomiting are present. Our author sums up (*British Medical Journal*, November 7th, 1869), his experience as follows: 1st. Capsicum is a valuable and reliable drug when opium fails or is for any cause contraindicated. 2d. It is a safe drug for general employment in delirium tremens, and as such may be confidently recommended. 3d. It is not open to the objection which attaches to the continued use of opium, which, when it fails to tranquilize and produce sleep, adds to the state of excitement, and when pursued beyond a certain limit may induce opium coma. 4th. Capsicum has been employed in the delirium of fever when opium has failed to cause sleep, and with marked success in certain cases.

As a member of the family of solonaceous plants, capsicum might, *a priori*, have been expected to contain a narcotic principle. As yet the alkaloid in which it resides has not been isolated; but in some researches, conducted at the request of Dr. LYONS, M.



ALPHONSE GAGES, a distinguished member of the chemical staff of the College of Sciences for Ireland, has found sufficient indications of its presence to warrant him in predicting its ultimate detection and isolation. It will, Dr. LYONS expects, form a valuable boon to practical medicine when eliminated from the acrid oils of the capsicum fruit.

H. S. PURDON, M. D., LONDON.

Our author finds (*Medical and Surgical Reporter*, August 1st, 1874), in the treatment of this disease, *nourishment*, such as plenty of milk, eggs, and in some cases, a moderate allowance of stimulants, necessary. He has remarked that when the patient is pale, thin, and not a confirmed tippler, GRAVES' plan of treatment (see p. 32), by tartar emetic and opium, succeeds very well; however, opium sometimes stimulates, even when guarded with antimony. A good *purgative* is a capital preparation for this or any plan of treatment. *Chloral* is useful, but does not always agree, and often seems to stimulate the heart and brain. *Red pepper*, in twenty grain doses, has not succeeded in his hands, nor has *bromide of potassium*. He has had no experience of the *tincture of digitalis* in half ounce doses, as recommended by JONES, of Jersey (see p. 33), nor of the hypodermic injection of *caffein*. For the tremor and unsteadiness that remain after an attack, the *oxide of zinc*, in two grain doses, thrice daily, has done good, or if the appetite is bad, *quinine*, given with the *ammoniated tincture of valerian*, may be ordered.

### RÉSUMÉ OF REMEDIES.

*Ether*, by inhalation, has been recently recommended. When the pulse is weak, the extremities cool, and the patient restless rather than violent, it should not be pushed to full anæsthesia.

\* *Alcohol*. There is a wide difference of opinion in the profession, in regard to the use of stimulants in this affection. Most practitioners, however, regard the sudden withdrawal of accustomed stimuli as injurious and dangerous. ANSTIE is among those who are of the opinion that in first attacks in young subjects, it is proper to abstain altogether from the use of alcohol, and in every case to abstain as long as possible. When deemed indispensable, alcoholic stimulants should be conjoined with nutritives, *e. g.*, in the form of milk punch, egg flip, etc. GERHARD obtains satisfactory results by simply continuing the use of alcoholic stimulants in moderate quantity. FLINT says that so long as the affection continues, it is, in general, injudicious to discontinue the use of stimulants, which must be given freely when the symptoms denote failure of the vital powers. After sleep has been secured, and the patient is convalescent, the habitual use may be broken up with safety. STILLÉ states that alcohol acts as a specific



cure. In mild cases, he prefers porter to distilled liquors, on account of the narcotic and tonic elements it contains; in severe ones the stronger preparations of alcohol are alone effectual. Wine may be used with advantage, but is less resorted to than brandy or whisky.

*Ammonii Bromidum* has been employed with good results in delirium tremens by Dr. PEACOCK (*British Medical Journal*, July 3d, 1869).

*Anthemis*, in an emetic dose, may be given at the commencement of an attack.

*Antimonii et Potassii Tartras* is much employed by German physicians in this affection, but little used in America or England, excepting in combination with opium, when it often induces sleep after the failure of opium alone (F. 28).

*Atropia*, hypodermically, is recommended by BARTHOLOW when there is obstinate insomnia with great restlessness, weakened action of the heart, coldness of the surface, clammy sweat, with a failure of nutrients, bromide of potassium, chloral and hypodermic injections of morphia.

*Belladonna* has been suggested as a remedy when the pupil is greatly contracted, but there is yet little clinical evidence as to its utility.

*Brominium*, see *Potassii bromidum*.

*Camphora* is recommended by Dr. LAYCOCK in those cases occurring in persons of a nervous habit, where the exhaustion is great, and morphia inadmissible. Two to three grains may be given every third hour, alone, or combined with carbonate of ammonia and hyoscyamus (F. 26).

*Caffein*, hypodermically, has been recommended.

*Cannabis Indica* is regarded by Dr. ANSTIE as preferable to opium when there is any reason, from the quality of the pulse, to believe the circulation much enfeebled. He prescribes gr.  $\frac{1}{4}$ – $\frac{1}{2}$  of a good extract. H. J. TYRRELL records (*Medical Press*, March 13th, 1867), a case of delirium tremens, in which, after three doses of ℥xx of the tincture of cannabis indica, every third hour, the benefit was marked after the failure of capsicum, and when opium was contra-indicated.

\**Capsicum* in large doses is strongly recommended by Dr. LYONS and others (F. 30).

\**Chloral* has proved of benefit through its hypnotic influence. It may be given by the mouth or hypodermically. (LANGENBECK, of Berlin).

*Chloroformum* by inhalation has been recommended by some, but most writers are of the opinion of Dr. WILKS (*Medical Times and Gazette*, September 19th, 1868), that "you may quiet the patient by it for a time, but you do not in any way influence the disease." Dr. ANSTIE mentions two cases of death from cardiac palsy while the inhalation was proceeding. Internally, Dr. GOODFELLOW recommends (*British Medical Journal*, July 3d, 1869), the following formula for the administration of chloroform:—

31. R.	Chloroformi,	℥xx	
	Quiniæ sulphatis,	gr. ij	
	Tincturæ cardamomi compositæ,	f. ʒj	
	Aquæ,	f. ʒx.	M.

For one dose.

*Cinchona* in strong infusion is said to act very happily in this disease and in the tremulousness which affects habitual drunkards.

*Conium* is recommended by Dr. HARLEY, in combination with opium, thus:

32. R.	Succi conii,	f. ʒiv–vj–viij
	Tincturæ opii,	℥xx–xxx.

For one dose.



\**Digitalis* in large doses is recommended by Dr. JONES (F. 29), and others.

*Hydrargyri Chloridum Mite* in full purgative dose, repeated if necessary, is useful in those cases in which there is hepatic congestion or abdominal plethora, when its action is sometimes followed by sleep, after the failure of opium to produce it.

*Hyoscyamus* is favorably spoken of by Dr. BARLOW (F. 26), and others.

*Ipecacuanha* in full doses (gr.xx every fifteen minutes until emesis is produced) is the practice of Dr. SCHENCK, of Osage City, Kansas (New York Medical Journal, October, 1873).

*Lupulina* is recommended in tincture by Prof G. B. WOOD, as an admirable adjunct to opium, the combination succeeding, after the failure of opium alone to induce sleep. During convalescence from this disease, he considers it as one of the best remedies which can be employed to sustain a moderate tonic and soporific influence.

*Morphia* hypodermically is recommended by Dr. ANSTIE and others. The former says that opium should never be administered by the stomach, but always in the form of morphia hypodermically injected, in the dose of gr. $\frac{1}{10}$  -  $\frac{1}{4}$  -  $\frac{1}{2}$ .

*Opium* is no longer employed indiscriminately in heroic doses in every case of delirium tremens. To give it in large and repeated doses, on the principle that sleep must be produced at all hazards, is to run the risk of killing the patient. Dr. ANSTIE (*The Practitioner*, July, 1868) asserts, that great mischief was formerly done by the custom of plying the patient with larger and larger successive doses of opium, to drown the delirium in narcotic stupor, and says that opiates should never be given by the mouth when the hypodermic injection of morphia is possible. Prof. GRAVES recommends, in young, robust subjects, when there is much vascular excitement, the following combination :

33. R. Tincturæ opii,  
Vini antimonii,                      āā    ℥xx.

To be repeated every three or four hours, according to circumstances.

When the patient is old, and when there is much depression, the opium may be advantageously combined with carbonate of ammonia (grs.ij-iv) or quinine (grs.ij-ijj), or with camphor. Chloral as a hypnotic promises to supersede opium in this disease. Prof. STILLÉ says the best method of administering opium in delirium tremens is to begin with gr. $\frac{1}{4}$  or its equivalent, and progressively augment the dose by small and hourly additions until sleep is produced, or a sufficient degree of tranquillity obtained.

\**Potassii Bromidum* is recommended by Dr. RINGER as of conspicuous benefit, by removing the delusion, calming the delirium and procuring sleep in the earlier stages of the disease, before the delirium has become furious. It is also of service in removing any delusions that may remain after the attack has been partially subdued. It should be given in doses of from twenty to thirty grains, or even larger, every two hours till sleep ensues. Unfortunately, it is not uniformly beneficial, and in some cases it seems entirely inert.

\**Quiniæ Sulphas* is the nervous tonic in which Dr. ANSTIE has the most confidence, in grain doses two or three times daily. It should be given from the first, if possible, being, if the stomach is very irritable, administered in effervescence with bicarbonate of potash and citric acid. Its superior efficacy in producing that nervous tranquillity which makes sleep possible is very marked. When it fails he advises sulphuric ether ℥ xxx thrice daily, or



34. R. *Ætheris sulphurici*, f.ʒj  
*Tincturæ sumbuli*, ℥xxx. M.

For one dose at bedtime.

*Sinapis*. In that stage when a timely emetic will cut short the attack, none is so appropriate as mustard.

*Valerian* is a valuable adjunct to treatment, and often effective alone in slight cases.

\* *Zinci Oxidum* is recommended in delirium tremens, after opiates have done their work, by Dr. WARING CURRAN, and others.

*Cathartics* are of service at the outset in the young and robust, when the attack results from the ingestion of a large quantity of spirits, but in the old, broken-down, habitual drunkard they are contra-indicated.

*Emetics* have recently been re-introduced in the treatment of this disease. At the beginning of the attack, when there is reason to suppose that the stomach contains a large amount of spiritous fluid, they are useful, but otherwise they are inferior to the supporting plan of treatment.

*Stimulants*, see Alcohol, above.

#### EXTERNAL REMEDIES.

*Hypodermic Injections*. *Atropia*, injected in a dose not exceeding gr.  $\frac{1}{4}$  at one time, is recommended by Prof. BARTHOLOW in certain cases (see p. 35); *Caffein*, in the dose of gr. j of the citrate, dissolved in glycerine, has been employed with good effects; *Chloral* has been recommended, but its use, hypodermically, is objectionable, on account of the local irritation it occasions and the eschars which may result; *Morphia*, the use of which, hypodermically, in delirium tremens, was first suggested by HUNTER, is advised by OGLE, SEMELEDER, LOVENT, EULENBERG, RUPPNER, ANSTIE and others. The practitioner should be warned, however, against abusing this remedy (see Opium, p. 36). Prof. BARTHOLOW gives the following as the indications for the use of morphia, hypodermically, in this disease: the condition of "horrors," or wakefulness, preceding delirium; excessive and uncontrollable vomiting of food, drink and medicine; mild cases, in which there is little tendency to depression of the vital forces, and in which the assimilation of food proceeds satisfactorily. The following are the contra-indications for the use of this method: severe and protracted cases, with great depression of the vital forces and non-assimilation of food; cases in which serious organic lesions of liver and kidneys have occurred; cases in which the attack is consecutive to traumatic or other serious lesion of brain.

*Ice* to the shaven scalp is sometimes of benefit, when there is much vascular excitement, but is to be employed with caution in the case of habitual, debilitated drunkards, and in no instance to be too long continued, lest dangerous depression should result. Dr. CHAPMAN'S spinal ice bag exercises a favorable influence in some cases.

*Wet Sheet Packing* is of great value in delirium tremens. The patient, stripped naked, is rolled in a wet sheet, and then a blanket wrapped around this. So soon as a hot vapor surrounds the patient he falls, in many cases of delirious excitement, into a quiet sleep.



## EPILEPSY.

PROF. C. E. BROWN-SÉQUARD, M. D.

35. R.	Potassii iodidi,		
	Potassii bromidi,	āā	3i
	Ammonii bromidi,		3 <sup>ss</sup>
	Potassii bicarbonatis,		ʒij
	Infusi calumbæ,		f.ʒvj. M.

A teaspoonful before each of the three meals, and three tablespoonfuls at bedtime, with a little water.

The above is given in cases of idiopathic epilepsy, in which patients derive no benefit, or have ceased to have any, from the bromide or iodide of potassium alone or combined, or of the bromide of ammonium alone.

When the patient's pulse is weak, substitute for the bicarbonate of potassium in the above formula the carbonate of ammonium, and for the six ounces of infusion of columbo, an ounce and a half of the tincture of that medicine, with four ounces and a half of distilled water.

Dr. BROWN-SÉQUARD gives the following very important *rules relative to the treatment of epilepsy by the bromide of potassium and ammonium*, employed together or separately.

1. That the occurrence during the day of the sleepiness caused by these remedies can be avoided by giving relatively small doses in the daytime and a much larger dose late in the evening.

2. That the quantity of these medicines to be taken each day must be large enough to produce an evident though not complete anæsthesia of the fauces and upper parts of the pharynx and larynx; that daily quantity being from 45 to 80 grains of the bromide of potassium, and from 28 to 45 grains of the bromide of ammonium, when only one of these salts is employed, and a smaller quantity of each, but especially of the second, when they are given together.

3. That an acne-like eruption on the face, neck, shoulders, etc., should be produced, and it is most important to increase the dose when there is no eruption, and also when the eruption is disappearing, unless the dose already given in the twenty-four hours is so large that any increase of it causes great sleepiness in the daytime, a decided lack of will and of mental activity, dullness of the senses, drooping of the head, considerable weakness of the body, and a somewhat tottering gait.



4. That it is never safe for a patient taking either of the bromides or both, and receiving benefit therefrom, to be even only one day without his medicine, so long as he has not been at least fifteen or sixteen months quite free from attacks.

5. That the debilitating effect of the bromides in patients already weak, as are most epileptics, ought to be prevented or lessened by the use of strychnia, arsenic, the oxide of silver, ammonia, or cod-liver oil, cold douches or shower baths, and, of course, wine and a most nourishing diet. In making use of strychnia or arsenic, it must be kept in mind that not only the bad influences of the bromides, but also their favorable influence against epilepsy, can be diminished by these powerful agents (especially strychnia), and that it is therefore necessary, when these agents are used, to increase the dose of the bromides.

6. That *iron* and *quinine*—which are generally injurious to epileptics, except in cases in which the nervous affection is caused, or at least aggravated, by chlorosis, anæmia, or malarial cachexia—are more particularly injurious in cases in which the bromides are taken.

7. That a gentle purge every five or six weeks usually gives a new impulse to the usefulness of the bromides against epilepsy.

36. R. Morphiae sulphatis, gr.  $\frac{1}{4}$   
Atropiæ sulphatis, gr.  $\frac{1}{60}$  M.

For one *hypodermic injection*, in a few minims of distilled water.  
Our author has succeeded in curing a case of epilepsy by the use of this injection.

*Inhalation of Chloroform.*—In a case of a gentleman who had pretty regular weekly attacks of epilepsy, our author employed chloroform by inhalation, almost without interruption, for two or three days successively, with the object of preventing the expected fit or fits. It was of the greatest importance in that case to prevent a fit, as the patient, in a preceding attack, had fractured and dislocated one of his arms. The inhalation of chloroform saved him from the expected attack, and the callus had time to be formed before he had another fit.

GEORGE JOHNSON, M. D., *King's College Hospital, London*, also speaks in high terms of chloroform in connection with bromide of potassium in this affection. He thinks that the action of chloroform inhalation in warding off a threatened fit and in cutting short



a violent and prolonged paroxysm, is as uniform and certain as the action of anæmia in exciting convulsions.

THOMAS HAWKES TANNER, M. D., London, has also used the vapor of chloroform, and believes that the fits have diminished, both in severity and numbers, from its employment.

J. PHILPOT WEBB, M. D., of Nevada City, California, *Licentiate of the Royal College of Physicians of Edinburgh, etc.*, has recently reported a case of epileptiform convulsions arrested by chloroform inhalation in a boy aged fifteen.

*Mechanical and Physical Means.*—Dr. BROWN-SÉQUARD has found: 1. That it is not necessary to apply an irritation (by a ligature, pinching, etc.), on the very limb from which an aura seems to start, as the same means applied elsewhere may succeed; but the chance of success is much greater by the former than by the latter way.

2. That a constant or a frequent irritation (by a blister, an issue, a seton, the actual cautery, etc.), on the place from which an aura seems to start, may not only prevent fits, but, by some change of nutrition locally (if the aura is really of peripheric origin), and in the nervous centres, may reduce or even destroy altogether the tendency to fits, and lead to a complete cure.

3. That as a circular ligature may procure a temporary good effect, so a narrow *circular blister* applied all around a limb, a toe, or a finger, or a circular cauterization with a white-hot iron, may cure epilepsy in cases with a distinct aura.

4. That even in cases in which there is no aura, felt or unfelt, ligatures, pinching, and other means of irritation, may prevent the occurring of expected fits.

When an attack of epilepsy is followed by a comatose state, or even a sleep with heavy breathing, it is of the greatest importance to place the head of the patient in such a position that the tongue, which is then paralyzed, will not fall on the larynx and cover its aperture.

T. S. CLOUSTON, M. D., EDINBURGH.

From extensive and very elaborately conducted experiments, to determine the precise effect of bromide of potassium in epilepsy, and its proper dose, Dr. CLOUSTON found that the diminution of the fits, and all the other good effects of the medicine reached their



maximum in adults, at thirty-grain doses thrice daily; while ill effects were manifested when thirty-five grain doses thrice daily were reached.

J. WARING CURRAN, M. D., DUBLIN.

37. R. Zinci oxidi, gr.ijss  
 Extracti glycyrrhizæ, q. s. M.  
 For one pill. One or two thrice daily.

This, together with the bromide of potassium in mixture, forms a method of treatment not to be equaled in epilepsy, when assisted by the occasional application of *Chapman's spinal ice bag*. Neither remedy succeeds so well alone; the one is essential to the other.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

38. R. Zinci valerianatis, gr.ijj  
 Extracti belladonnæ, gr.  $\frac{1}{3}$   
 Pulveris digitalis, gr.  $\frac{1}{4}$ . M.  
 For one pill. To be taken thrice daily in cases of epilepsy, associated with irregularity of the heart.

PROF. WM. A. HAMMOND, M. D., NEW YORK.

In regard to the dose of bromide of potassium in epilepsy, Dr. HAMMOND states that the symptoms due to large doses of the bromide may be enumerated as follows, in the usual order of their occurrence: 1. Contraction of the pupils; 2. Drowsiness; 3. Weakness of the arms and legs; 4. Depression of mind; 5. Failure of memory; 6. Delusions. The first three of these are the usual accompaniments of a dose of the medicine capable of producing any influence over epilepsy. In adults they never follow less doses than ten grains. Doses of five grains produce no effect.

MARSHALL HALL, M. D., LONDON.

39. R. Strychniæ acetatis, gr.j.  
 Acidi acetici, ℥xx  
 Alcoholis, f.3ij  
 Aquæ destillatæ, f.3vj. M.  
 Ten drops (gr.  $\frac{1}{50}$ ) to be taken in water thrice daily.

J. SPENCE RAMSKILL, M. D., LONDON.

40. R. Bruciæ, gr.iv  
 Alcoholis, f.3ij  
 Aquæ destillatæ, f.3vj. M.  
 Ten minims to be taken diluted with water twice daily: every third day an addition of five minims should be made to the dose, until from a third to a half grain is reached, in the treatment of stomachal epilepsy.



If any stiffness of the jaws or other toxic symptoms appear, the dose is to be diminished five minims, and continued until any new objectionable symptom is manifested; then it is again lessened. No benefit will be derived until a full dose is reached; often the reverse effect (London *Lancet*, January 16th, 1869). As a rule, patients will take twice as much brucia as strychnia without any necessity for diminishing the dose. After the continuous administration of brucia for a month, it is well to suspend its use for some days, and then again resume it. Great satisfaction will be obtained by giving the bromide of potassium in large doses at bedtime, and at the same time ordering brucia twice daily, thus insuring the sedative influence of the bromide and the tonic effect of the brucia on the whole nervous system.

## DR. SCHMITT, GERMANY.

41. R. Tincturæ iodinii, gtt.xv  
 Aquæ menthæ piperitæ,  
 Aquæ destillatæ, āā f.ʒij  
 Syrupi, f.ʒj. M.

A tablespoonful every two hours, to prevent the return of an attack.

42. R. Tincturæ iodinii, f.ʒj  
 Alcoholis diluti, f.ʒss  
 Spiritus calami, gtt.j. M.

Five drops, every two or three hours, in sweetened water, to prevent a return of an attack.

## WALTER TYRRELL, M. D., LONDON.

Our author states that he has watched the effects of strychnia upon various forms of epilepsy, and has no hesitation in affirming that in a large majority of cases its effects are most beneficial. He found but three cases in which it produced no favorable result, and no cases in which it produced an unfavorable effect. He gives a medium quantity as a dose, for a lengthened period, rather than carrying the dose too high at first. The best results are obtained from gr.  $\frac{1}{16}$  to gr.  $\frac{1}{8}$ , twice a day, in solution, the system appearing to regain its nervous strength under the continued use of the medicine.

## HOSPITAL OF DISEASES OF THE CHEST, LONDON.

43. R. Potassii bromidi, gr.x  
 Tincturæ conii, ℥xxx  
 Tincturæ valerianæ ammoniatæ, ℥x  
 Aquæ camphoræ, f.ʒj. M.

For one dose, thrice daily.



## HOSPITAL OF UNIVERSITY COLLEGE, LONDON.

44. R. Potassii bromidi, gr. x  
 Spiritus chloroformi, ℥xviiij  
 Infusi quassiae. f. ʒj. M.  
 For one dose, thrice daily.

## RÉSUMÉ OF REMEDIES.

*Ammonii Bromidum* is often prescribed in epilepsy alone, or in combination with bromide of potassium (F. 35).

*Ammonii Carbonas* is a valuable palliative, though possessed of no curative influence in this disease. Dr. ANSTIE and others assert that, if there be time to administer a dose previous to an impending attack, it will often avert it. PEREIRA recommends it in large doses (grs. x-xx), in the hysterical form of the disease.

*Ammonii Formias* has been of service in some forms of epilepsy, hurtful in others. Dr. RAMSKILL advises a further trial of this remedy.

*Ammoniae Aqua* is recommended by Dr. HOPE and others, in epileptic congestion of the brain, arising from debility. The following formula is most efficacious:—

45. R. Aquæ ammoniæ, ℥xij  
 Aquæ menthæ viridis, f. ʒiss. M.

For one dose. If taken at the first warning of an attack of this character, it seldom fails to arrest its supervention. The inhalation of ammoniacal vapor immediately after the first warning of an attack, is recommended by PEREIRA, PINEL and others, as often averting its occurrence.

*Ammonii Valerianas*, although very deliquescent, and therefore uncertain in its operation, is favorably reported upon by a number of writers as a remedy in epilepsy.

*Anilin* is recommended by Drs. TURNBULL and ANSTIE. The latter finds that large doses aggravate the fits, but that one grain thrice daily, with an additional grain on the occurrence of any prodromata of a fit, delays or mitigates the paroxysm, or even averts it for a considerable time.

*Antimonii et Potassii Tartras* has been used internally, and also in the form of the tartar emetic ointment, to secure pustulation of the scalp and spine.

*Argenti Nitras* is no longer given in prolonged courses, at the risk of the patient's turning blue, a fate so frequently reserved for epileptics in former times. Other remedies of equal or greater efficacy, and less danger, have now, to a great extent, displaced it.

\**Arseniosum Acidum* is employed in epilepsy, but it is much less effective in this disease than in chorea. Dr. RADCLIFFE employs it hypodermically and endermically, in the same manner as for chorea, see p. 25.

*Assafœtida* is recommended by Dr. POLLOCK (*Lancet*, Aug. 21, 1869), as capable of giving satisfactory results in the following combination:—

46. R. Tincturæ assafœtida, ℥xxx  
 Ammoniae carbonatis, grs. iij. M.

For one dose, to be repeated thrice daily. In cases of epileptic seizures, due to the presence of worms in the alimentary canal, assafœtida is a useful agent.



*Barii Chloridum* is occasionally employed.

*Belladonna*, though praised by TROUSSEAU, WILKS and HARLEY (particularly in cases arising from emotional excitement, when it should be combined with zinc) is superseded in practice by the superior claims of bromide of potassium.

*Bismuthi Subnitras* has been employed by Dr. COPLAND (the bowels being kept freely open) alone and in combination with tonics and antispasmodics, with good results.

*Brominium*, see *Potassii Bromidum*.

*Camphora* seems to be useful in cases associated with hysteria or uterine disorders. It should be given in combination with tonics and antispasmodics.

*Cannabis Indica* has not proved of value in epilepsy.

*Cantharis*, see *External Remedies, Blisters*.

*Castoreum* is a very old remedy in this disease, having been recommended by CELSUS.

*Cerii Oxalas* is recommended by Prof. SIMPSON.

*Chloral* sometimes mitigates and even prevents the recurrence of periodical fits, by putting the patient to sleep.

\**Chloroformum*. Chloroform inhalations are recommended by Drs. BROWN-SEQUARD (p. 39), JOHNSON, TANNER, WEBB (p. 40) and others, both during the paroxysm and in the interval. Dr. BROWN-SEQUARD considers this method of treatment particularly valuable in cases partaking of a hysterical character.

*Cinchona* is rarely successful in true epilepsy, but of great benefit in the epileptiform paroxysms of intermittent fever.

*Conium* has been found by Dr. HARLEY to cause rapid and decided improvement in epilepsy arising from sexual abuse, or from the irritation of dentition, but in that arising from peripheral disorder of sensation, from menstrual irregularity, or from emotion, it fails to exercise any beneficial influence.

*Cupri Sulphas* has been successfully employed in  $\frac{1}{4}$  gr doses, combined with quinine,

*Cuprum Ammoniatum* is now not much used in epilepsy.

*Digitalis* has proved of little service in epilepsy, though it has been recommended in large doses.

*Hydrargyri Iodidum Rubrum* has been recommended by Dr. FULLER (*Medical Times*, February 14, 1857) in cases where there is reason to suppose thickening of the dura mater.

*Hyoeyamus* in occasional full doses (f.ʒiv-vij of the succus or f.ʒiv-vij of the tincture) has been found by Dr. HARLEY very serviceable in epilepsy arising from emotional disturbances, but in other varieties of this disease it has proved useless in his hands.

\**Morrhuae Oleum* has been employed by Dr. ANSTIE, with encouraging results, in cachectic cases. It must be persevered in for a long time.

*Moschus* is sometimes useful. Dr. A. T. THOMSON says that it diminishes the violence of the paroxysms of idiopathic epilepsy, and greatly lengthens the intervals, when administered as follows:—

47. R. Moschii,

ʒj.

In a bolus for one dose, every eight hours.

*Nitrite of Amyl* by inhalation, has been found eminently useful by WEIR-MITCHELL, in a case brought on by inordinate venery.

*Nux Vomica*. In epilepsy following the disappearance of the menstrual discharge, COPLAND recommends *nux vomica* combined as follows:—



48. R. Extracti nucis vomicæ, gr. x  
 Pilulæ aloës cum myrrha, ʒij M.  
 For 36 pills. From one to two night and morning. Its employment demands caution.

*Opium* is now rarely employed, since the discovery of the value of bromide of potassium, in this affection.

*Oxygen Inhalations* are recommended by Dr. RAMSKILL (*Medical Times*, July 4th, 1863). On the accession of giddiness, or other uncomfortable symptoms, they should be stopped.

*Phosphorus* is regarded by Dr. ANSTIE as well worthy of further trial in this disease, as it improves the patient's general health and relieves the sense of languor and depression.

*Plumbi Acetas* was formerly much employed, but is now rarely administered.

\**Potassii Bromidum* is the remedy *par excellence* in epilepsy. See opinions already given, of Drs. BROWN-SEQUARD (p. 38), CLOUSTON (p. 40), HAMMOND (p. 41). It cures in very many cases, and rarely fails to diminish the number of attacks.

*Quiniæ Sulphas* is sometimes prescribed.

\**Santonin* is of service when the epilepsy is due to the presence of worms in the alimentary canal.

*Sinapis* is a useful emetic in epilepsy, for over distention of the stomach.

*Stanni Chloridum* has been employed in doses of gr.  $\frac{1}{6}$  to  $\frac{1}{4}$  thrice daily, in pill, or dissolved in hydrochloric ether.

*Stramonium* is of doubtful efficacy in epilepsy.

*Strychnia* is strongly recommended by WALTER TYRRELL (p. 42), and in the threatenings of epilepsy, by MARSHALL HALL (F. 39).

*Tabacum* is supposed to have a curative influence in epilepsy produced by onanism, as the use of tobacco allays sexual lust.

*Terebinthinæ Oleum*, though little used in epilepsy, is strongly recommended by Sir THOMAS WATSON (who states that if he was called upon to name any single drug from which in ordinary cases he should hope for relief, he should mention turpentine), and by Dr. HEADLAND, who prescribes it as follows:—

49. R. Olei terebinthinæ, f.ʒss  
 Thrice daily.

Or

50. R. Olei terebinthinæ,  
 Olei ricini, āā f.ʒiij. M.  
 For one dose at occasional intervals.

*Valeriana* is highly praised as a remedy for epilepsy, by BRISBANE, FOTHERGILL, HALLER, WILLIS, and others, but regarded as of little value by CULLEN, HEBERDEN, and HOME.

*Zinci Lactas* was first recommended in epilepsy by Dr. HERPIN (*Bull. Gén. de Thérap.*, November, 1856), who regards it as of equal medicinal value with the oxide, and superior to it in taste and tolerance. He gives it at first in two grain doses, in pill, thrice daily, and gradually increases the quantity until ten grains are taken during the day.

\**Zinci Oxidum* is regarded by Dr. RUSSELL REYNOLDS as superior to the sulphate of zinc in epilepsy. He gives it in doses of grs. iii-v thrice daily. Dr. WARING CURRAN strongly urges it as an adjunct to bromide of potassium (p. 41).



*Zinci Sulphas* is a long used remedy in epilepsy, but is now generally considered inferior, in this disease, to both the oxide and valerianate.

*Zinci Valerianas* is considered by many as the best salt of zinc in epilepsy. It is especially valuable in cases of a hysterical character. The dose should be small at first, one grain, gradually increased as the stomach will bear it. Dr. DA COSTA sometimes prescribes it with belladonna and digitalis (F. 38).

*Emetics*, given when an attack is imminent, will often, according to Dr. MARSHALL HALL, ward it off.

*Sedatives* are useful by controlling undue readiness of action of certain portions of the nervous centres.

*Stimulants*. A draught of wine or of some diffusible stimulant may put off an attack.

### EXTERNAL REMEDIES.

*Cold Shower Baths* are useful in epilepsy when the patient is not too timid nor too much excited by them.

*Turkish Baths* are sometimes employed, but great caution is required in the use of so powerful an agent.

\**Blisters*. A narrow circular blister applied above or at the starting point of the aura will sometimes prevent or modify a paroxysm.

*Cathartics* are of little service in epilepsy, excepting when the bowels are overloaded.

*Dry Cupping*, sometimes, according to Dr. GRAVES, averts a paroxysm of epilepsy where previous headache or other premonitory symptoms advertise its approach.

*Electricity* has given unsatisfactory results in epilepsy. Dr. COPLAND says that "the safest method of employing electricity is to place the patient on the insulating stool and subject him to the electric bath, and to draw sparks from different parts when thus insulated, and placed in connection with the prime conductor."

*Forcible Extension* of the muscles where the aura is seated, or the application of pressure between the starting point of the aura and the trunk, may avert an attack.

*Hypodermic Injections*. *Atropia*, subcutaneously, in this disease, was proposed by BROWN-SEQUARD, combined with morphia (F. 36). Prof. BARTHOW has also employed this combination. \**Morphia* alone, or in combination with atropia, has been found, when injected hypodermically, not only to relieve quickly the paroxysms in violent cases, but to afford permanent benefit by diminishing the number, frequency and severity of succeeding attacks, and, therefore, to dispute with the bromide of potassium for the foremost position among the remedies against epilepsy. As one may succeed when the other fails, Prof. BARTHOW points out that bromide of potassium is most effective in cases of *grand mal*, in which the paroxysms occur frequently, with great violence, and during the day-time, and less effective in those which occur chiefly at night; while the hypodermic injection of morphia is preferable in epilepsy, the paroxysms of which occur at night, in the *petit mal*, and in convulsive tic, but not proper, as a general rule, in cases of epileptoid character dependent upon cerebral lesion. Prof. B. advises, when the paroxysms succeed each other rapidly, and are violent, that the injection be made during an attack, and without loss of time, but states that ordinarily two or three times a week will suffice (dose gr.  $\frac{1}{2}$ ), the onset of an expected attack being anticipated whenever practicable.



## HEADACHE.

PROF. HARVEY L. BYRD, M. D., BALTIMORE.

In the treatment of *sick headache*, Prof. BYRD recommends the use of an emetic of ipecacuanha, and after its action the use of the following :

51. R. Chlorali, ʒj  
 Aquæ, f.ʒij. M.  
 A tablespoonful every hour until sleep is induced.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

In *congestive headache* the use of saline cathartics is of service. Also, a mustard foot bath every night. The application of a *hot salt bag* to the back of the neck often affords relief. This form of headache is frequently associated with cardiac enlargement.

PROF. AUSTIN FLINT, M. D., NEW YORK.

*Periodical headaches*, as regards successful treatment, belong among the opprobria of medical art. If patients be not unpleasantly affected by opiates, an attack may sometimes be warded off, or its severity much lessened, by a full dose of opium or one of its alkaloids. The carbonate of ammonium and a saline purgative are sometimes effective at the commencement of an attack. Various palliative measures may be resorted to, such as *inhalation of chloroform*, *evaporating lotions to the head* (alcohol, spirits, vinegar, ether), etc. In some cases a towel or napkin, wrung out in water as hot as can be borne, and wound around the head, is more efficient than cold applications. *Warm stimulating pediluvia*, strong *coffee* or *tea*, and the application of the *galvanic* or the *electro-galvanic current*, are useful in some cases. During the intervals the remedies which are sometimes of service by way of prophylaxis are, *nux vomica* or *strychnia* in small doses, *arsenic*, small doses of *quinia*, *belladonna*, and the preparations of *zinc*, more especially the valerianate. They may be tried in succession. Hygienic measures are important, and the avoidance of everything which experience shows, in individual cases, to act as exciting causes.

## NERVOUS HEADACHE.

PROF. R. J. GRAVES, M. D., DUBLIN.

52. R. Olei terebenthinæ, f.ʒj-ij.  
 For one dose, to be given in cold water.



Our author places much reliance on this medicine in the hysterical and nervous headaches of young women. Some will bear and derive benefit from two or three of these doses in the day, experiencing from its use a diminution of headache, the removal of flatulence, together with a moderate action on the bowels and kidneys. The turpentine may also be given in the form of an enema. Occasionally it causes dysuria and cannot be persevered in.

*Dry Cupping* at the nape of the neck, between the shoulders, and below the clavicles, is often of great service in hysterical headaches. Six cups should be applied and allowed to remain on for ten or fifteen minutes.

PROF. WILLIAM A. HAMMOND, M. D., NEW YORK.

53. R.	Zinci oxidi,	ʒij-v	
	Confectionis rosæ,	q. s.	M.

Divide into 20 pills. One to be taken three times a day, after meals.

This formula is of great value. The minimum dose (gr.ij) should be commenced with, gradually increasing to the maximum (gr.v) if necessary.

54. R.	Extracti nucis vomicæ,	gr. v	
	Ferri redacti,	ʒj	
	Quiniæ sulphatis,	gr. x	
	Syrupi,	q. s.	M.

Divide into 20 pills. One to be taken three times a day, after meals.

*Nux vomica* is preferable to *strychnia*.

55. R.	Bismuthi subcarbonatis,	ʒij	
	Confectionis rosæ,	q. s.	M.

Divide into twenty pills. One after each meal.

These pills will often take the place of those of oxide of zinc (F. 53). They are particularly useful when there is gastric disturbance.

*Bromide of potassium* is serviceable when the nervous system has been irritated; when exhausted it does harm.

*Bromide of ammonium* is similar to the bromide of potassium in its action, but the dose need not be so large. Our author often uses both combined.

*Opium* and its preparations are rarely of value in this disorder. If used, the hypodermic method is the best.

*Narcein* has, Dr. HAMMOND still thinks, a decided hypnotic effect when given in large doses.



*Phosphorus* is beneficial in all the forms of nervous headache. It is, however, difficult of administration, and leaves an unpleasant odor about the person. The best results are obtained from the following method of administration :—

56. R. Acidi phosphorici diluti, f.ʒvj.  
 Syrupi phosphatum compositi, f.ʒiij.  
 A dessertspoonful, in water, three times a day.

*Arsenic* as a nerve tonic stands next in value to zinc. Granules of arsenious acid (gr.  $\frac{1}{16}$ ) are preferable to FOWLER'S solution.

*Galvanism* is highly praised by some and severely condemned by others, in this affection. The brain cannot be acted upon to any considerable extent by the induced current or by reflex action. Our author advises always the *constant current*; being careful to avoid too great intensity, lest amaurosis be produced (*Half-yearly Compendium of Medical Science*, July, 1868).

GEORGE KENNION, M. D., HARROWGATE, ENG.

57. R. Carbonis bisulphidi, f.ʒij.  
 As a local application in neuralgic, periodical and hysterical headache, and even in many cases of dyspeptic cephalalgia.

About two drachms of the bisulphide of carbon is poured upon cotton wool, with which a small glass-stoppered bottle is half filled. The mouth of the bottle is applied *closely* to the temple or behind the ear, or as near as possible to the seat of pain, and so held from three to five or six minutes. In a minute or two a sensation as of several leeches biting the part is felt, and in three or four minutes more the smarting and pain become rather severe, but subside almost immediately after the removal of the bottle. (*Medical Times and Gazette*, July, 1868). It is very seldom any redness of the skin is produced. The effect of the application is generally immediate; it may be repeated, if necessary, three or four times a day. The sedative vapor of the bisulphide is probably absorbed through the skin, and acts upon the superficial nerves of the part to which it is applied.

DR. LETENNEUR, FRANCE.

58. R. Potassii bromidi, ʒi  
 Aquæ destillatæ, f.ʒx. M.  
 A tablespoonful before the mid-day meal, and two tablespoonfuls at bedtime, in migraine with periodical returns. During the attack the patient will take, three or four times a day, small doses of morphia.



DR. LABORDE, FRANCE.

59. R. Quiniæ sulphatis, 3ss  
 Tincturæ aconiti radicis, ℥xv  
 Althææ pulveris, q. s.  
 Divide into 30 pills. Three or four a day in hemicrania.

JAMES PERRIGO, M. D., MONTREAL.

Our author reports (Canada *Medical Record*, March, 1874) a case of severe headache in a business man, which resisted all ordinary treatment, but which yielded promptly to *guarana*. Thirty grains of the powder in water were prescribed, to be taken when the pain was severe. The medicine acted exceedingly well, completely relieving him of all his headache. He can invariably prevent an attack by taking the above dose when he feels the premonitory symptoms coming on.

THOMAS HAWKES TANNER, M. D., LONDON.

60. R. Quiniæ sulphatis, gr.xxiv  
 Pulveris rhei, gr.xxxvj  
 Glycerinæ, q. s. M.  
 Divide into 12 pills, and order one to be taken at night.

Often of service in curing *bilious headaches*; the patients also taking daily exercise in the open air, and avoiding too much sleep.

61. R. Acidi nitro-muriatici diluti, f.3ij  
 Strychniæ, gr. 1-1/2  
 Spiritus chloroformi, f.3vj  
 Tincturæ zingiberis, f.3ij  
 Aquam, ad. f.3ij. M.  
 A teaspoonful in water three times a day, in *nervous headache*.

Holding the arms high above the head produces a marked effect upon the cerebral circulation, and will frequently relieve the severity of that peculiar morning headache with which some persons constantly awake.

Compression of the temporal arteries with a couple of pads and a bandage may sometimes be of service.

Cold lotions, eau de cologne, etc., to the head, dry cupping or blisters, or setons to the nape of the neck; the removal of decayed teeth or stumps from the mouth, and change of air, are occasionally indicated.

62. R. Zinci valerianatis, gr.xij-xxiv  
 Extracti belladonnæ, gr.ij-vj  
 Extracti gentianæ, gr.xxiv. M.  
 Divide into 12 pills. One to be taken three times a day.



Useful in *hysterical headache*, especially when there is habitual constipation.

63. R. Zinci phosphatis, ℥j-ij  
 Acidi phosphorici diluti, f.℥iss  
 Tincturæ cinchonæ, f.℥vj  
 Aquam menthæ piperitæ, ad. f.℥iij. M.

Tablespoonful in a half wine glass of water three times a day, in *hysterical headache associated with debility*.

HENRY G. WRIGHT, M. D., LONDON.

64. R. Tincturæ capsici, f.℥ij  
 Liquoris ammoniæ acetatis,  
 Tincturæ aurantii,  
 Syrupi aurantii corticis, āā f.℥vj  
 Aquæ, f.℥ss. M.

A teaspoonful, to relieve the headache that ensues after *inebriety*, etc.

65. R. Linimenti chloroformi,  
 Linimenti belladonnæ, āā f.℥iss  
 Tincturæ opii, f.℥j. M.

For external application, in *rheumatic headaches*.

Mustard plasters applied to the neck are also exceedingly useful as a means of counter-irritation. In such cases (rheumatic headache) the following aperient is of advantage, viz:—

66. R. Pilulæ colocynthidis compositæ, gr.xv  
 Extracti colchici acetici, gr.ijj  
 Olei carui, ℥j. M.

Divide into 4 pills. Two to be taken at bedtime, and one on consecutive nights. These pills should be followed, in persons of a costive habit, by a morning purgative, as follows:—

67. R. Magnesiæ, ℥iv  
 Liquoris potassæ, ℥xlvj  
 Extracti sennæ fluidi, f.℥ij  
 Syrupi zingiberis,  
 Tincturæ aurantii, āā f.℥ss  
 Aquæ, f.℥j. M.

Dose—a tablespoonful.

The administration of an alkaline medicine containing potash, if continued with regularity, will generally be followed by rapid amelioration of the pain and tenderness. The following may be used:—

68. R. Potassii carbonatis, ℥iv  
 Potassii chloratis, ℥iss  
 Tincturæ cinnamomi,  
 Tincturæ aurantii, āā f.℥vj  
 Syrupi aurantii corticis, f.℥iss. M.

A dessertspoonful to be taken twice or three times a day.



If imprudent exposure to cold has produced an aggravation of the headache, and particularly if the patient be subject to catarrh, it is advisable to administer a sudorific at bedtime, such as

69. R. Pulveris ipecacuanhæ compositi, gr.xij  
 Pulveris camphoræ,  
 Pulveris guaiaci, aa gr.iv. M.  
 For one powder, to be taken about bedtime.

In *gouty* headaches colchicum may be employed with greater freedom than in ordinary gout, care being taken that the bowels are freely open during its administration. An actual attack is best relieved by a brisk aperient (F. 66), followed by an effervescing mixture, containing an excess of potash, viz. :—

70. R. Potassii carbonatis, ℥iv  
 Ammonii carbonatis, ℥ij  
 Tincturæ serpentariæ, f.℥ss  
 Aquæ camphoræ, f.℥iijss. M.  
 Two tablespoonfuls to be added to a tablespoonful each of water and lemon juice, and to be taken effervescing twice or three times a day.

In the treatment of *plethoric headaches* the employment of medicines should, as far as possible, be dispensed with. They should only be resorted to when the necessities of business prevent, or the solicitations of indolence interfere with, a strict control over the diet and regimen. In these cases a saline diuretic should be ordered, such as

71. R. Potassii acetatis, ℥ij  
 Potassii nitratis, ℥j  
 Spiritus juniperi compositi, f.℥xj  
 Aquam menthæ piperitæ, ad. f.℥iv. M.  
 A teaspoonful twice a day, together with an occasional aperient at night, viz. :—
72. R. Pilulæ colocynthidis compositæ, gr.l  
 Saponis castilliensis, gr.ix  
 Olei anethi, ℥ij. M.  
 Divide into 12 pills; two to be taken at bedtime, and followed by a Seidlitz powder in the morning.

Persons subject to plethoric headaches should not partake of animal food more than once a day; should never indulge the appetite to satiety; should avoid beer, spirits, coffee, and all stimulating beverages; should bathe the head freely at night and lie with it elevated on a hard pillow during sleep; should have an airy bed-



room and rise so soon as fairly awake, for otherwise activity of the thoughts in a recumbent position will congest the head and cause it to ache.

When the patient has been exposed to cold and the headache comes on at night, with the head hot and the skin harsh and dry, the following sudorific, taken at bedtime, is often of great service, the body being kept warm during its action :—

- |        |                                  |                   |    |
|--------|----------------------------------|-------------------|----|
| 73. R. | Antimonii et potassii tartratis, | gr. $\frac{1}{4}$ |    |
|        | Pulveris Jacobi veri,            | gr. v             |    |
|        | Pulveris potassii nitratis,      | gr. x.            | M. |
- To be taken at night.

In the plethoric headache of pregnancy, relief is afforded by the use of saline medicines, as

- |        |                               |    |         |
|--------|-------------------------------|----|---------|
| 74. R. | Magnesii sulphatis,           |    |         |
|        | Sodii sulphatis,              | āā | 3j      |
|        | Acidi sulphurici diluti,      |    | f. 3ij  |
|        | Tincturæ cardamomi compositæ, |    | f. 3iss |
|        | Syrupi aurantii corticis,     |    | f. 3ss  |
|        | Aquæ cinnamomi,               |    | f. 3j.  |
- A dessertspoonful twice a day. M.

Fluids should be avoided as far as possible. Sea air and sponging the body with tepid salt water generally prove beneficial.

In the treatment of *congestive headaches*, the aperients so frequently required should be cordial and saline, such as

- |        |                             |           |    |
|--------|-----------------------------|-----------|----|
| 75. R. | Extracti sennæ fluidi,      | f. 3ijss  |    |
|        | Magnesii sulphatis,         | 3ij       |    |
|        | Acidi sulphurici aromatici, | f. 3ij    |    |
|        | Syrupi aurantii corticis,   | f. 3j     |    |
|        | Infusi rhei,                | f. 3ijss. | M. |
- Dose—a tablespoonful in the morning.

There are no medicines so invariably useful in cases of congestive headache, attended with debility, as the preparations of Iron. If the patient be of stout phlegmatic habit, the tonic may be combined with a cordial and saline, according to the following formula :—

- |        |                               |           |        |
|--------|-------------------------------|-----------|--------|
| 76. R. | Ferri sulphatis,              | gr. xxxij |        |
|        | Magnesii sulphatis,           | 3x        |        |
|        | Acidi sulphurici diluti,      | f. 3ij    |        |
|        | Tincturæ cardamomi compositæ, | f. 3ij    |        |
|        | Syrupi,                       |           |        |
|        | Aquæ pimentæ,                 | āā        | f. 3j. |
- A dessertspoonful in water twice a day. M.



77. R. Tincturæ ferri chloridi, f.3ij  
 Acidi muriatici diluti, f.3ss  
 Tincturæ cinnamomi, f.3jss  
 Syrupi,  
 Aquæ cinnamomi, āā f.3vj. M.

A dessertspoonful in water, twice a day, about an hour after food.

In the congestive headache of females past the middle period of life, especially when these headaches accompany alterations of the whole system, at the great climacteric period.

In the treatment of *dyspeptic headaches*, when the pain comes on directly after a meal, and when it can be traced to indigestible articles of food, and the patient is tolerably strong, an emetic is useful.

78. R. Pulveris ipecacuanhæ, gr.xxv  
 Ammonii carbonatis, gr.v  
 Aquæ menthæ viridis, f.3iss. M.

Take at one dose and follow by some warm fluid.

Where the pain ensues some hours after taking food, a warm draught, with the following formula, is generally beneficial:—

79. R. Pulveris rhei, ʒijss  
 Magnesii carbonatis, ʒij  
 Spiritûs ammoniæ aromatici, f.3ij  
 Syrupi zingiberis, f.3ss  
 Aquam menthæ piperitæ, ad. f.3ij. M.

A tablespoonful in water.

Such a headache may often be warded off by the following:—

80. R. Pulveris rhei, gr.xviii  
 Pulveris capsici, gr.v  
 Sodii carbonatis exsiccatae,  
 Pulveris aloes,  
 Saponis castilliensis, āā gr.xij. M.

Divide into 12 pills. One to be taken before the meal, as a dinner pill.

81. R. Pilulæ hydrargyri,  
 Pilulæ rhei compositæ, āā gr.iv  
 Extracti hyoscyami, gr.ij. M.

Divide into 2 pills. To be taken at night, in cases of headache depending upon *dyspepsia*,

Or,

82. R. Pulveris ipecacuanhæ, gr.j  
 Pilulæ colocynthidis compositæ, gr.vij  
 Extracti gentianæ, gr.ij  
 Olei carui, ℥½. M.

Divide into 2 pills. To be taken at bedtime.



When the system is debilitated it is often more advisable to employ the following, in place of the night pills :—

- |        |                               |    |            |
|--------|-------------------------------|----|------------|
| 83. R. | Infusi sennæ,                 |    |            |
|        | Infusi rhei,                  | āā | f. 3v      |
|        | Tincturæ cardamomi compositæ, |    | f. 3j      |
|        | Syrupi,                       |    | f. 3ss. M. |

To be given as a draught in the morning.

Great benefit is generally derived from the combination of a bitter with an alkali, as in

- |        |                              |    |             |
|--------|------------------------------|----|-------------|
| 84. R. | Sodii carbonatis,            |    | 3ij         |
|        | Spiritus ammoniæ aromatici,  |    | f. 3vj      |
|        | Tincturæ aurantii,           |    |             |
|        | Syrupi aurantii corticis,    | āā | f. 3ij      |
|        | Tincturæ gentianæ compositæ, |    | f. 3iss. M. |

A dessertspoonful twice a day.

If the stomach be very irritable, with excessive flatulence, the following mixture is more suitable :

- |        |                               |    |               |
|--------|-------------------------------|----|---------------|
| 85. R. | Bismuthi subnitratis,         |    |               |
|        | Sacchari,                     |    |               |
|        | Pulveris acaciæ,              | āā | 3j            |
|        | Tincturæ cardamomi compositæ, |    |               |
|        | Tincturæ zingiberis,          | āā | f. 3ss        |
|        | Aquæ anethi,                  |    | f. 3iijss. M. |

A tablespoonful taken twice a day.

The same medicine may be combined with soda and capsicum, thus :—

- |        |                              |    |              |
|--------|------------------------------|----|--------------|
| 86. R. | Bismuthi subnitratis,        |    |              |
|        | Sodii carbonatis exsiccatae, | āā | ℥ijss        |
|        | Pulveris capsici,            |    | gr. viij. M. |

For 8 powders. One to be taken twice a day, in dyspepsia with much acidity, with loss of appetite and general want of tone.

- |        |                    |  |              |
|--------|--------------------|--|--------------|
| 87. R. | Argenti oxidi,     |  | gr. xij      |
|        | Pulveris capsici,  |  | gr. iv       |
|        | Extracti gentianæ, |  | gr. xxiv. M. |

Divide into 8 pills. One to be taken twice a day.

In atonic dyspepsia, when the tongue is pale at the tips and edges, and the system weakly, few recipes prove so invariably successful as the above.

- |        |                     |  |          |
|--------|---------------------|--|----------|
| 88. R. | Morphiæ muriatis,   |  | gr. j    |
|        | Pulveris camphoræ,  |  | gr. xxiv |
|        | Mucilaginis acaciæ, |  | q. s. M. |

Divide into 6 pills.

*In Intermittent Headache.* One pill to be taken when the headache is very intense. Five hours are to be allowed to elapse before repeating the dose.



89. R. Quiniæ sulphatis, ʒss  
 Ferri carbonatis saccharatæ, ʒj  
 Pulveris aromatici, ʒijss. M.

Divide into 20 powders. One to be taken twice or three times a day, commencing with half a powder. Useful in *periodical headache* occurring in delicate and weakly persons.

In the treatment of *Nervous Headache* and of cases of megrims, the combinations of hyoscyamus with camphor, with chloroform, or with a diffusible stimulant, generally affords great relief. The following formulæ may be used :

90. R. Extracti hyoscyami, āā ʒijss. M.  
 Pulveris camphoræ, āā

Divide into 20 pills. Two to be taken when the pain is severe.

91. R. Chloroformi, f.ʒiss  
 Tincturæ hyoscyami, āā f.ʒss  
 Tincturæ cardamomi compositæ, āā m̄xvj  
 Olei limonii, āā  
 Sacchari, āā ʒss  
 Pulveris acaciæ, āā f.ʒijj. M.  
 Aquæ camphoræ, āā

Dose—a tablespoonful.

92. R. Tincturæ hyoscyami, āā f.ʒss  
 Spiritus ammoniæ aromatici, āā f.ʒj  
 Syrupi aurantii corticis, āā f.ʒij. M.  
 Aquæ menthæ piperitæ, āā

Dose—a tablespoonful.

93. R. Pulveris camphoræ, āā gr.x  
 Quiniæ sulphatis, āā gr.xij  
 Extracti aloës, āā ʒss  
 Extracti hyoscyami, āā q. s. M  
 Mucilaginis acaciæ, āā

Divide into 18 pills. Two pills to be taken twice a day, in cases of nervous headache when there is great debility and sluggishness of the system.

(For additional recipes, see *Hemicrania*).

## RÉSUMÉ OF REMEDIES.

### BILIOUS, OR SICK, AND DYSPEPTIC HEADACHES.

*Ammonii Acetatis Liquor* is recommended by Prof. STILLÉ, who considers few remedies so successful in sick headaches, as a teaspoonful or two of this solution.

*Ammonii Carbonas* will sometimes offer almost instantaneous relief.

\**Ammonii Chloridum* is useful in bilious, as well as hysterical headaches. According to Dr. ANSTIE, gr.x-xx, if given early enough, seldom fails to cut short and greatly mitigate the attack. It is given with great benefit when the pain is most intense in any form of headache.

*Argenti Nitras* is recommended by Dr. J. JOHNSON (in combination with minute doses of compound colocynth pills), in the habitual stomach headache to which delicate and literary men are so subject.



*Bismuthi Subnitras* is frequently advised, variously combined, in dyspeptic headache, by Dr. WRIGHT (F. 85, 86).

*Carbonis Bisulphidum* is recommended by Dr. KENNION, in dyspeptic headache, applied locally (F. 57).

*Chloral* is recommended in sick headache, by Prof. BYRD (F. 51).

*Hydrargyri Chloridum Mite* is of service in headaches arising from biliary derangement, or a torpid state of the bowels. It should be followed, at a short interval, by a saline or other purgative.

*Magnesia*, in cases accompanied with constipation, affords great relief.

*Magnesii Citratis Liquor*. A dose of the effervescing citrate is often very effectual in dyspeptic headache.

*Podophyllum* is prescribed with benefit in many forms of bilious headache.

*Potassii Bromidum* has been recommended for the prompt and certain relief of the paroxysm.

*Rheum* is advised by Drs. TANNER (F. 60) and WRIGHT, variously combined (F. 75, 79, 80, 81, 83).

#### CONGESTIVE OR PLETHORIC HEADACHE.

*Asarum Europæum*, gr. ij–iij of the powdered root, snuffed into the nostrils, has proved useful in cases of severe chronic headache originating in inflammation of the frontal sinuses.

*Aloetic* purgatives are beneficial in congestive headaches.

\* *Leeches* may be applied with advantage to the temples, to the crown of the head, or to the verge of the anus.

*Saline aperients* are recommended by Drs. DaCOSTA (p. 47) and WRIGHT (p. 53).

*Shower Baths* are of advantage in congestive as well as hysterical headaches.

*Sinapisms*, to which have been added powdered capsicum or oil of turpentine, are often applied with benefit to the soles of the feet and the inner parts of the calves and thighs.

\* *Water*, locally applied, *hot*, is often more effectual than the cold lotions usually employed. Diligently steeping the temples, forehead, occiput, and nape of the neck with water, as hot as can be borne, in many cases will be found a useful remedy. The hot foot-bath is often of signal service.

#### GOUTY HEADACHE.

*Colchicum* may be employed with greater freedom in gouty headache than in ordinary gout, according to Dr. WRIGHT (p. 52).

#### HYSTERICAL AND NERVOUS HEADACHES.

*Ammonii Chloridum* is advised by Dr. ANSTIE, to be administered in the same manner as for bilious headache (which see above).

*Ammonii Bromidum* is recommended by Prof. HAMMOND, alone or combined with the bromide of potassium (p. 48).

*Argenti Nitras* is highly prized by Dr. GRAVES, administered in considerable doses; *i. e.*, gr.  $\frac{1}{2}$  five or even six times daily, for five or six days at a time, when the paroxysm has abated. If there be constipation, the nitrate should be combined with minute doses of compound colocynth pill.

*Bismuthi Subcarbonas* is often prescribed by Prof. HAMMOND, particularly when there is gastric disturbance (F. 55).

*Cajuputi Oleum* is used both externally and internally, in nervous, rheumatic, and neuralgic headaches.



*Camphora* is useful, combined with *hyoscyamus* (F. 90, 91, 93).

\* *Chloroformi Spiritus*, in the dose ℥xv-xxx, often affords prompt relief in nervous and hysterical headaches.

*Cimicifuga* is useful in the headaches attendant on uterine derangement.

*Caffea*. A cup of strong coffee is of service in many cases of hysterical and nervous headache. The addition of the juice of a lemon adds greatly to its efficacy.

*Guarana* is particularly efficacious in the relief of sick headache, in doses of half a drachm to a drachm (see p. 50).

*Hyoscyamus* is strongly recommended by Dr. WRIGHT, in nervous headache. It may be combined with camphor, with chloroform, or with a diffusible stimulant (F. 90, 91, 92, 93).

*Lavandula*. The compound tincture, administered according to the following formula, makes an agreeable stimulant:—

94. R. Tincturæ lavandulæ compositæ,  
Spiritus chloroformi,  
Spiritus ætheris compositi, āā f.ʒj  
Aquæ camphoræ, f.ʒiij. M.

Dose, two tablespoonfuls in water. Opium may be added if indicated.  
This is a very effectual recipe for the headache of hysteria.

*Narcein* is recommended as a hypnotic by Prof. HAMMOND (p. 48).

*Nitro-muriaticum Acidum* is recommended by Dr. TANNER (F. 61).

*Opium* is, Prof. HAMMOND states, of little value in these disorders.

*Phosphorus* is recommended by Prof. HAMMOND in all forms of nervous headache (F. 56).

*Quiniæ Sulphas* is beneficial in hysterical headaches associated with anæmia.

*Rosmarinus*. The infusion is a mild stimulant, sometimes of service.

*Stramonium* has been prescribed with benefit by Dr. COPLAND.

*Strychnia*. Prof. HAMMOND considers *nux vomica* as preferable to *strychnia* in nervous headaches (F. 54).

*Terebinthine Oleum* is recommended by Dr. GRAVES in hysterical headache (F. 52).

\* *Valeriana* is of especial benefit in hysterical headache. Dr. ASHWELL recommends the following formula:—

95. R. Tincturæ valerianæ,  
Spiritus ætheris compositi,  
Spiritus lavandulæ compositi, āā ℥xxx  
Tincturæ hyoscyami, ℥xx  
Aquæ camphoræ, f.ʒx. M.

For one dose.

Dr. CONNOLLY recommends the following:—

96. R. Tincturæ valerianæ ammoniatæ  
Spiritus ætheris compositi, āā ℥xxx  
Aquæ camphoræ, f.ʒiss. M.

Or,

97. R. Tincturæ valerianæ ammoniatæ, f.ʒj  
Acidi sulphurici diluti, ℥xv  
Aquæ camphoræ, f.ʒiss. M.

Make a draught, to be given twice or thrice a day.

*Zinci Oxidum* is regarded as of great value in nervous headache, by Prof. HAMMOND (F. 53).



*Zinci Phosphas* is recommended by Dr. TANNER, in hysterical headache, associated with debility (F. 63).

*Zinci Valerianas* is also recommended by Dr. TANNER, combined with *bella-donna* (F. 62).

## EXTERNAL REMEDIES

*Æther* to the forehead, on a very thin compress, to avoid irritation of the skin, by thus favoring its free evaporation, is an excellent application.

*Camphora*, locally applied, is a valuable remedy in nervous headaches. The following formula may be employed:—

98. R.	<i>Camphoræ</i> ,	ʒj	
	<i>Aceti</i>	Oj	
	<i>Aquæ</i> ,	Oj--ij.	M.

Another excellent local application is what is known in France as "l'Eau Sedative de Raspail," which is made as follows:—

99. R.	<i>Aquæ ammoniæ</i> ,	100 parts.	
	<i>Camphoræ</i> ,	2 "	
	<i>Sodii chloridi</i> ,	20 "	
	<i>Aquæ</i> ,	900 "	
	<i>Olei rosæ</i> ,	q. s.	M.

*Dry Cupping* is recommended by Dr. GRAVES (p. 48).

*Oleum Cajuputi*. A few drops rubbed upon the painful part are often effectual.

*Shower Baths* are often of great advantage in hysterical headache.

## NEURALGIC HEADACHE.

*Ammonii Chloridum*, given when the pain is most intense, in the dose of gr. x-xx, sometimes affords prompt relief.

*Cajuputi Oleum* is used, both externally and internally, by Dr. COPLAND and others.

*Camphora*, in the form of "Raspail's sedative water" (F.99), is sometimes very useful.

*Carbonis Bisulphidum* is recommended by Dr. KENNION (F. 57).

*Caffein*. The citrate has been recommended in doses of gr. j, every hour, for some time before the expected attack. Coffee is much used by Belgian physicians. The juice of a lemon makes a valuable addition to a cup of strong coffee in these cases. Caffein may also be employed hypodermically.

*Nitrite of Amyl*, by inhalation, has been successfully employed in neuralgic headache, associated with a diminished supply of blood in the brain.

## EXTERNAL REMEDIES.

*Acetum*. A compress wet with vinegar and water, and bound upon the temples, often affords relief.

*Æther* applied to the forehead, on a very thin compress, so as to permit of its rapid and complete evaporation, is useful.

*Sinapisms* over the seat of pain sometimes afford relief.

*Spiritus Ætheris Nitrosi* makes a pleasant, cooling, evaporating lotion, if not continued so long as to irritate the skin.



## PERIODIC HEADACHE.

*Arsenici Iodidum* has been found, by Dr. WALSHE, to give relief in the most violent cases of periodic headache. It should be given in doses of gr.  $\frac{1}{16}$ – $\frac{1}{8}$ , twice a day, two hours after eating, and continued for a month or two.

*Ammonii Carbonas* and a saline purgative, at the commencement of an attack, are recommended by Prof. FLINT (p. 47).

*Belladonna* is sometimes of service as a prophylactic (p. 47).

*Nectandra* is a useful remedy in periodical headaches.

*Potassii Bromidum* often rapidly relieves headache of a paroxysmal character, with heat of the head and flushing of the face.

*Quiniæ Sulphas*, in small doses, is recommended, by way of prophylaxis, by Prof. FLINT (p. 47).

*Zincum*. The various preparations of this metal, more especially the valerianate, may be employed with advantage in the intervals of the attacks.

## RHEUMATIC HEADACHE.

*Aconitum* in small doses, either alone or in combination with other remedies, is often of service.

*Chloroform* liniment is recommended by Dr. WRIGHT (F. 65).

*Colchicum*, combined with an aperient, is useful (F. 66).

*Potassii Carbonas* is prescribed by Dr. WRIGHT (F. 68).

*Stramonium* is recommended by Dr. COPLAND and others.

\**Sulphur* internally is often of great benefit in rheumatic headaches and those which occur in women about the period of the cessation of the menses.

*Alkaline* treatment, if continued with regularity, will generally be followed by satisfactory results (F. 68).

## SEVERE IDIOPATHIC HEADACHE.

*Ferri Carbonas* has been prescribed with signal success, in the dose of gr. j twice a day.

*Potassii Bromidum* often proves a valuable remedy.

*Zingiber*. A ginger plaster applied to the forehead is said, by PEREIRA, to afford much relief.

*Frigus*. A freezing mixture of ice and salt is serviceable in those cases in which the headache is combined with much heat of the integuments, and when the symptoms appear to threaten secondary local inflammation.

*Issues*. Obstinate headache occurring in robust subjects often yields to an issue at the nape of the neck.

## HEADACHE FROM MENSTRUAL DERANGEMENT.

*Aloetic Purgatives* are useful in cases arising from suppression of the catamenia.

*Ammonii Chloridum* is variously estimated by different physicians in cases of headache arising from irregularity or suspension of menstruation, some finding it powerless, others of great service.

*Cimicifuga* is often useful.

\**Sulphur* given internally is of benefit in headaches occurring in women about the period of the cessation of the menses.



## HEMICRANIA.

M. BERTRAND, PARIS.

100. R. Veratriæ, gr.v  
Morphiæ, gr.ijj  
Adipis, ʒj. M.

The painful parts to be rubbed with this ointment frequently, when the paroxysms of pain are at their height. Two or three frictions ordinarily suffice. A number of cases of facial neuralgia, and of neuralgic headache, in which quinine and blisters had been tried without effect, yielded promptly to this application.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

101. R. Extracti conii fluidi, ℥l  
Ammonii chloridi, ʒij  
Syrupi aurantii corticis,  
Aquæ, āā f.ʒiss. M.

Teaspoonful thrice daily, in neuralgic headache associated with plethora, rather than anemia, in young women. Also, a drachm of cream of tartar, before breakfast, daily, or twice a day.

A small cup of strong coffee, with which the juice of a lemon has been mixed, will, in some cases, afford relief in an attack of hemicrania.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

102. R. Caffeini citratis, gr.x  
Syrupi, q.s.  
Divide into 10 pills. One to be given every hour, on the first symptoms.

An infusion of unroasted coffee, drank daily, appears sometimes to render the attacks more rare and less severe.

## RÉSUMÉ OF REMEDIES.

\**Acidum Arseniosum* is highly praised by Sir THOMAS WATSON, who states that four to six drops of Fowler's solution, three times a day, with due attention to the bowels, will, in nine cases out of ten, remove hemicrania.

*Caffein*, in the doses of one grain every hour, for some time before the expected paroxysm, is of great service (F. 102).

*Cannabis Indica* is sometimes very effective.

*Conium* is used in some cases, combined with chloride of ammonium (F. 101).

*Digitalis* has proved successful in conjunction with quinine.

*Ergota* has been employed with very satisfactory results by Dr. E. WAAKES (*British Medical Journal*, Aug. 8, 1868).

*Ferri Sulphas*, in doses of gr. viij-x, daily, either alone or combined with extract of hyoscyamus, will occasionally cure intermittent hemicrania.

*Quiniæ Sulphas* is a most valuable remedy in intermittent hemicrania.

*Veratria* is highly praised by a number of writers. M. BERTRAND's recipe (F. 100) may be employed, or the following formula by Dr. FULLER:

103. R. Veratriæ, gr.xx-xxx  
Glycerinæ, f.ʒij  
Spiritus rectificati, f.ʒvj. M.

Apply with a camel-hair brush night and morning, and rub in well along the course of the affected part, care being taken that there is no abrasion of the cuticle.



## HYPOCHONDRIASIS.

W. W. GULL, M. D., LONDON.

It is obvious that the first duty of the physician is to encourage the hypochondriac to forget his woes, a difficult thing in practice, as it is a fallacy to suppose that his sufferings are unreal; on the contrary, they are most vividly real, and it is impossible that he should forget them until they cease. The key to the moral treatment is the breaking down of the patient's morbid self-concentration, and this object may be achieved to some extent, in many cases, by a change in the course of his daily life. This may be most readily carried out with those in whom the constitutional tendency to hypochondriasis is aggravated by the ennui of an idle life. For these an active career or occupation which forces them to mix with the world is an immense gain. The isolated activity of the student is no real diversion from the fancies of hypochondriasis, as the case of Dr. JOHNSON and of many other famous intellectual workers abundantly proves. It is needless to say that all actively depressing influences should be removed, such as immoderate venereal indulgence, of whatever kind, or alcoholic intemperance. On the other hand, the influence of new emotions, which tend to lift the patient out of himself, can scarcely fail to benefit. It would be a real good fortune to a hypochondriac if he could fall in love in a natural and healthful manner, or if he could interest himself warmly in philanthropic schemes or other plans of public usefulness. And above all, something like a police supervision should be exercised over his studies, in order that he may be vigorously kept from the perusal of medical or other books which might remind him of his miseries, for though we do not believe that these things can create hypochondriasis, yet they may certainly prevent its cure.

The *constitutional treatment* is to be directed towards improving the general nutrition. The administration of *iron* is doubtless of great use to some anæmic patients, and *sea-bathing* frequently appears to exercise a very beneficial influence; but the first of these remedies is generally the most efficacious when taken in the form of the chalybeate waters of some foreign spa, and there is good reason to doubt whether both mineral waters and sea-bathing do not owe most of their apparent power to the moral influences of travel, and change of scene, and mode of life. The more specific



nervous tonics, such as strychnia, quinia or phosphorus, seem to exercise but a doubtful and exceptional influence.

While it is desirable to avoid concentrating the patient's attention on parts which are the apparent seat of morbid sensations, it is important to relieve him of the distress caused by real (though mere functional) disorders of the digestive system. Decided acidity of the stomach should be counteracted by the use of antidotes, of which none is more efficacious than *magnesia* in ten grain doses thrice daily, with gentian or cascarilla. The excessive or too prolonged use of alkalies is, of course, to be avoided. The distressing flatulence which is often one of the earliest, and also one of the most annoying symptoms, is greatly relieved by *creasote* (one drop in a pill, two or three times daily) or the *infusion of valerian*. Alcoholic tinctures should be cautiously employed, if at all, for there is real danger of the patient getting to appreciate the comforting sensations given by the spirit so highly that he gradually takes to drink; this is particularly apt to occur in hypochondriacal women, and in patients exhausted by masturbation, or other venereal indulgence. The constipation, frequently so obstinate and troublesome, should be remedied, if possible, without drugs, so as to avoid stimulating the patient's love of self-doctoring in the direction of the habitual use of purgatives. Fruit, green vegetables, etc., and active bodily exercise, are desirable means of accomplishing this object.

Physical exercise should be amusing, and never produce severe fatigue. A short continuance of the malpractice of carrying exercise to the fatigue point will usually suffice to produce a profound deterioration of the vigor of the nervous system, and an aggravation of the hypochondriacal fancies.

DR. HOMOLLE, FRANCE.

104. R. Extracti aloës,  
Quiniæ sulphatis,                      āā      ʒss  
Extracti valerianæ,                      q. s.

Divide into 40 pills. One to four a day in hypochondria. Exercise in the open air, amusements and appropriate regimen.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

The only way to cure a hypochondriac, is to rid him of his morbid sensations, but it is useless to dispute with him and try to convince him of the error of his ideas. In the first place, any existing derangement of the system which would cause a feeling of



illness in a sane person, should be corrected. The benefit derived from various *natural mineral springs* is no doubt due to their happy effect upon the gastric disorders which so frequently give rise to this disease. Preparations of *iron, sea bathing, and cold foot-baths*, are frequently appropriate. Drastic *cathartics* must be used with caution, though they cannot be altogether dispensed with, and generally afford temporary relief. Patients should be warned against over-dosing. This also applies to the use of *carminatives*, for which they nearly always beg.

The *psychical* treatment should have in view the diversion of the attention from the sensory to the motor and intellectual spheres. This object will not be attained in educated patients by ordering long walks, wood-sawing, gymnastics, and mechanical pursuits, because the attention is not diverted by such action out of the sphere of sensation. A hypochondriac merchant sawing wood is always busy with the thought that he is doing so because he is sick. General rules are of little value, as the directions must always be in accordance with the capacity, education and means of the patient.

### RÉSUMÉ OF REMEDIES.

*Assafoetida*, in combination with bitter tonics and mild aperients, may often be given with advantage in hypochondriasis attended with dyspepsia.

*Creasotum*, one drop, in pill, two or three times daily, will greatly relieve the distressing flatulence of hypochondriasis.

*Fel Bovinum Purificatum* is advised by Dr. COPLAND in hypochondriasis attended with torpor of the intestines:—

105. R.	Fellis bovini purificati,		
	Pilulæ assafoetidæ compositæ āā	gr. xxx	
	Extracti aloës,	gr. xx	
	Saponis	gr. x	
	Pulveris ipecacuanhæ compositi,	gr. viij.	M.

For 30 pills. One or two to be taken before dinner.

*Ferri Sulphas* is useful when anæmia co-exists.

*Hyoscyamus* has been found of service by Dr. HARLEY, in occasional full doses (f.ʒiv–viij) of the succus.

*Moschus*, in the dose of one grain every two hours, often proves successful in the sleeplessness of hypochondriasis.

*Potassii Bromidum* is an uncertain remedy in this disease, affording great relief in some cases, and proving inert in others.

*Rosmarinus*. The infusion is sometimes useful.

*Sumbul Radix*. The resinous extract of this root, in doses of gr. j–ij, thrice daily, has proved beneficial in the hands of Russian physicians.

\**Shower Baths* are often highly useful.

*Turkish Baths* have been employed with marked advantage.



## HYSTERIA.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

The following directions are given by our author as to what may be done during a fit of hysteria: Everything tight about the patient's person should be loosened. The window should be opened and the cold air allowed to blow over her. The horizontal posture on a bed or the floor should be secured. This being done, many modes of further proceeding may be followed. Bleeding is, in all cases, of doubtful efficacy. When the jaw is locked, the following *enema* (recommended by Dr. Wood) may be used:—

106. R. Assafoetidæ, ʒij  
Aquaë, f.ʒss. M.

To be beaten up with the yolk of an egg, or, what is still better,

107. R. Olei terebinthinæ, f.ʒss.

To be mixed with the yolk of an egg, and then added to half a pint of water.

Another remedy is to *fill the mouth with salt*. But that which supersedes all others, and is unquestionably the best, is a *good drenching with cold water*. If the patient lie on the bed, the head should be drawn over its side, and a large quantity of water poured on it, from a considerable height, out of a pail, jug, or other large vessel, and directly over the mouth and nose of the patient, so as to stop her breathing and compel her to open her mouth. This practice is generally introduced into hospitals, and until it was adopted, it was not unusual to see three or four patients in hysteria in the same ward and at the same time. Under this practice, however, a hysterical case is rare, and the fit seldom occurs twice in the same person, and never becomes epidemic.

PROF. BOUCHUT, PARIS.

108. R. Chloroformi, ℥.xx  
Alcoholis, f.ʒiss  
Syrupi, f.ʒvii. M.

Mix the chloroform and alcohol, then add the syrup, and shake. To be given by table spoonfuls to hysterical patients, during the attack.

109. R. Moschii, ʒss  
Assafoetidæ, ʒij  
Camphoræ, gr.xv  
Extracti gentianæ, q. s.

Divide into 15 pills. Three a day in nervous and hysterical affections.



110. R. Zinci valerianatis, gr. ix  
 Extracti belladonnæ, gr. ij  
 Extracti gentianæ, ʒj.  
 Divide into 12 pills. One thrice daily in hysterical headache, associated with habitual constipation.

\* THOMAS KING CHAMBERS, M. D., LONDON.

111. R. Acidi muriatici diluti, f. ʒiiss  
 Aquæ calefactæ, (95° F.) C. xxx. M.  
 For a bath. This tonic warm bath is to be used once a day, in order to prepare the patient for a *shower bath* twice a day.

Shower baths, in hysterical cases, are highly recommended by Dr. C. The making up the mind to the shock of a cold shower bath is a capital exercise of the will. Such baths have also a good influence by arterializing the cutaneous circulation, driving the venous blood home to the heart and lungs.

Our author rings the changes upon the following prescriptions in the treatment of this disease:—

112. R. . Pilulæ assafoetidæ, No. xxx.  
 Three to be taken thrice daily.

113. R. Spiritus ammoniæ foetidæ, f. ʒiij.  
 A teaspoonful in water three times a day.

114. R. Tincturæ castorei ammoniatæ, aa f. ʒij.  
 Aquæ fœniculi,  
 A dessertspoonful in water thrice daily.

115. R. Pilulæ galbani compositæ, No. xxx.  
 Two thrice daily.

116. R. Zinci valerianatis, ʒj  
 Syrupi, q. s.  
 Divide into 20 pills. One to be taken three times a day.

SIR CHARLES LOCOCK, LONDON.

117. R. Potassii bromidi, ʒijss  
 Aquæ cinnamomi, f. ʒiv. M.  
 A dessertspoonful thrice daily.

In hysterical epilepsy, with disordered uterine functions, the treatment being prolonged. It was this use of bromide of potassium, suggested by our author, which led to its introduction as a remedy in forms of epilepsy other than the hysterical.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

118. R. Aurii et sodii chloridi, gr. v  
 Tragacanthæ, ʒj  
 Sacchari, q. s. M.  
 Divide into 40 pills. Order at first one of these pills to be taken an hour after dinner, and another an hour after supper. Afterwards order two pills to be taken at these hours, and gradually increase the dose up to eight pills daily.



Our author speaks of this preparation as a nervine of great efficacy in hysteria. He has made use of it with signal effect in many cases where there was no indication for the local treatment of uterine disease, or else, where the hysteric symptoms persisted, although the local uterine affection had been cured.

THOMAS HAWKES TANNER, M. D., LONDON.

119. R. Tincturæ assafoetidæ, f.ʒij  
 Ammonii carbonatis, ℥j  
 Aquam camphoræ, ad. f.ʒiv. M.

One or two tablespoonfuls occasionally, when feeling languid or hysterical.

120. R. Tincturæ assafoetidæ, f.ʒij  
 Spiritus ammoniæ aromatici, f.ʒiij  
 Tincturæ chirettæ, f.ʒviij.

Sixty drops in a wineglassful of water every two or three hours, until the paroxysms cease.

121. R. Tincturæ valerianæ ammoniatæ, f.ʒijss  
 Infusi valerianæ, f.ʒiv.

Two tablespoonfuls to be taken occasionally.

122. R. Ferri phosphatis, ℥ij  
 Acidi phosphorici diluti, f.ʒiss  
 Syrupi aurantii corticis, f.ʒj  
 Syrupi acaciæ, f.ʒiij.

A tablespoonful, largely diluted, three times a day.

123. R. Phosphori, gr.ʒ.  
 Olei amygdalæ dulcis, f.ʒiij. M.

One teaspoonful in a wineglassful of barley water three times a day.

The patient's diet should be regulated. She should have nourishing food, and often a moderate quantity of wine or beer. Hot rooms and evening parties are to be proscribed, and stays ought not to be worn. Healthy mental occupation should be afforded.

EDWARD JOHN TILT, M. D., LONDON.

124. R. Tincturæ castorei, f.ʒiij  
 Spiritus lavendulæ compositi, f.ʒvj  
 Aquam camphoræ, ad. f.ʒvj. M.

A tablespoonful two or three times a day, when cerebral symptoms and hysterical phenomena are marked.

The therapeutical indications in the treatment of hysteria are: 1st. To blunt the sensitiveness of the nervous system by sedatives and antispasmodics, and to strengthen it by metallic and other tonics, and by hygiene. 2d. To cure all diseases of the sexual organs, and save the nervous system from visceral irritation, by



good hygiene at menstrual periods; or by marriage, when the sexual organs crave for their legitimate satisfaction.

#### GERMAN PHARMACOPŒIA.

125. R. Tincturæ assafœtidæ, f.ʒiv  
 Tincturæ castorei, f.ʒiij  
 Tincturæ opii, f.ʒj. M.

From fifteen to thirty drops, by the mouth or in enemata, twice or three times a day, in the hysterical attacks of dysmenorrhœa. Bitter drinks and preparations of iron in the intervals of the attacks if the patient be anæmic.

#### RÉSUMÉ OF REMEDIES.

*Æther.* Nothing, according to STILLÉ, so distinctly moderates the paroxysms of this disease as the inhalation of ether. Those who have found the spasms aggravated by a certain degree of etherization have not administered a sufficient quantity of the vapor. If persisted in it would undoubtedly have put an end to the fit.

*Allium.* The smell of bruised garlic will sometimes promptly terminate a hysterical paroxysm.

*Aurii et Sodii Chloridum* is prescribed by Dr. NIEMEYER (F. 118).

*Aloes.* The pill of aloes and assafœtida is very serviceable in the constipation of hysteria.

\**Ammonium.* The carbonate, the aromatic spirits, the fœtid spirit, the valerianate, and other preparations, are much used and of great value (F. 113).

*Anthemis.* A wineglassful of the infusion of chamomile may be given with advantage thrice daily.

\**Assafœtida* is a most valuable medicine in this disease. It may be given alone, or combined as directed in (F. 119, 120), or the following form may be used:

126. R. Tincturæ assafœtidæ,  
 Tincturæ castorei,  
 Tincturæ valerianæ ammoniatæ, aa f.ʒij  
 Aquæ camphoræ, f.ʒviij. M.

Dose—one or two tablespoonfuls every hour. Assafœtida may also be given, in the form of an enema (F. 106).

*Aurantii Flores.* Orange flower water is much used and valued in France. It is an elegant stimulant and antispasmodic, in doses of one to two fluid ounces.

*Brominium.* See *Potassii Bromidum*.

*Cajuputi Oleum* internally is often of benefit.

*Camphora* is a very serviceable remedy, either alone or in combination with assafœtida or opium.

*Cannabis Indica* is sometimes useful.

*Castoreum* is a remedy of considerable value (F. 114, 124, 125).

*Chloral* may prove of use in calming hysterical excitement.

*Chloroform* inhalation is highly praised by Dr. BROWN-SÉQUARD and Dr. GRAILY HEWITT in severe and prolonged hysterical paroxysms. Internally it may be given with ammonia or assafœtida. A liniment of chloroform often speedily relieves hysterical pain in the side.

*Cupri Sulphas*, in small doses, long continued, is recommended by Sir. B. BRODIE, in obstinate hysteria.



*Cusparia Cortex.* The infusion is an eligible light tonic in hysteria.

*Ferrum* is indicated in hysteria associated with anæmia. It may be given combined with valerian and other antispasmodics (F. 122).

*Galbanum* sometimes agrees better than assafœtida, and may produce equally favorable results, particularly in cases associated with disordered uterine functions. A galbanum plaster over the sacrum often affords relief (F. 115).

\* *Lavandula* is sometimes an effectual remedy (F. 124).

*Lupulin* has been recommended in chronic hysteria, attended with morbid vigilance, in doses of ten grains every six hours.

*Moschus*, in doses of gr. x-xv thrice daily, is a valuable remedy, particularly when the surface is pale and the pulse languid.

*Opium* is useful in cases in which the paroxysms are brought on by pain.

*Phosphorus* is prescribed by Dr. TANNER (F. 122, 123).

*Potassii Bromidum* is sometimes a useful sedative in hysteria. Its use was suggested by Sir C. Locock (F. 117).

*Ruta.* From two to five drops of the volatile oil, on sugar, is a popular remedy; so also is the infusion of rue.

\* *Santonin* sometimes proves useful in revealing the true cause of the hysterical symptoms, viz., worms in the intestinal canal.

\* *Spiritus Ætheris Nitrosi* is often very effectual in relieving hysterical spasms. *Terebinthinæ Oleum*, in enema, will often arrest a severe paroxysm when ordinary means fail.

\* *Valeriana* is a valuable remedy; it may be given both during the paroxysm and in the intervals (F. 121).

*Zinci Oxidum* is considered by Dr. WARING CURRAN as more efficacious in hysteria, than the valerianate.

*Zinci Sulphas*, in the dose of one grain, combined with extract of gentian, in pill, two or three times a day, is a valuable remedy in cases of hysteria depending upon debility. It will be found to agree better with many women, than the preparations of iron, causing less irritation.

*Zinci Valerianas* is recommended by Dr. CHAMBERS (F. 116).

*Shower Baths* often prove highly useful.

*Turkish Baths* are sometimes beneficial.

*Cathartics* are to be administered if constipation exists, as it is important in hysteria to keep the bowels open. Aloes are indicated if there be torpor of the uterine system; mercurials or podophyllin, if there be biliary derangement; and saline, if there be plethora; but active purgation is in no case advisable.

*Dry Cupping* at the nape of the neck, between the shoulders, or below the clavicles, during a paroxysm of hysteria, has been found, by Dr. GRAVES, to be attended with the best results.

*Electricity.* Dr. LAYCOCK advises the persevering and systematic application of electro-galvanism to the abdominal and pelvic regions, in combination with the internal use of tar.

*Emetics.* An emetic of ipecacuanha given when the paroxysm is impending, often prevents it.

*Enemata* of assafœtida, turpentine, and other antispasmodics, are often of advantage (F. 106, 107).

*Frigus.* The sudden application of cold to the surface of the body, in hysterical cases simulating death, will revive the signs of life.

*Water Douche* over the head and face, strongly recommended by Dr. AITKEN, p. 65.



## INSOLATION.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

Our author recommends the following line of treatment of Dr. BARCLAY:—

In the class of cases in which death tends to occur suddenly, from *syncope*, there is little opportunity afforded for relief; but the measures indicated are—the *cold douche*; keeping the surface wet and exposed to a current of air, or assiduously fanned; exclusion of light as far as possible; the immediate employment of stimulants, external and internal, by the rectum as well as by the mouth. *Depletory measures of any kind are not to be thought of.*

In the less rapidly decisive cases, prompt treatment is of the greatest use, while delay is fraught with the greatest danger. The patient must be immediately stripped of his outer clothing, placed in a semi-recumbent position, and the cold douche applied, from a height of three or four feet, over his head and along his spine and chest, while his extremities are sponged with cold water. Relaxation of the pupil is the first favorable symptom under this treatment, which may require to be repeated several times, on account of returning insensibility. If there is any evidence of failure of the pulse, this treatment must be discontinued, for application of cold to the head is then all that can be borne. The hair is to be cut short as soon as possible, and a blister applied to the nape of the neck. When the first violence of the attack is subdued, increasing confidence in the ultimate result may be indulged in so soon as vesication takes place; and in cases where insensibility recurs after an interval of ten or twelve hours, it may be removed by the application of a second blister to the vertex. A blister may also be applied along the spine in the worst cases. Stimulation by the *electro-galvanic current*, with the moist sponges applied along the sides of the neck, chest and epigastrium, ought also to be employed. *Sinapisms* ought generally to be applied to the extremities, and to the chest or sides.

In cases where the breathing is much oppressed, and the bronchial tubes loaded with mucus, the patient should be turned occasionally over on his face and side.

In the convulsive form of the disease, where the greatest irritability of the nervous system prevails, the douche is found to be in-



admissible, from the agony which it occasions. In such cases, Dr. BARCLAY has found great benefit from the inhalation of chloroform. Great care is necessary in its employment, and the cases in which it is indicated are rare.

Dr. A. P. MERRILL, of New York, and others, have recommended the use of chloroform internally.

DR. WHITEHILL, OF ST. LOUIS.

Our author has had a large experience with sunstroke, having seen as many as fifty cases in a single day during a forced military march in 1863. (*St. Louis Medical Archives*, September, 1868.)

The treatment found most successful was cold to the head and chest, friction of the extremities, and the internal administration of stimulants, such as brandy and ammonia. In his own case, the nausea and vomiting were relieved by full draughts of strong green tea and Rhenish wine. In all cases, a most important part of the treatment was to place the patient in the recumbent position in the shade, where there was a free circulation of air, and at the same time disencumber him of everything that could in any wise interfere with either circulation or respiration. Under this treatment every case had recovered.

C. G. HILL, M. D., MARYLAND.

Our author recommends (*Virginia Medical Monthly*, November, 1874), oxygen inhalations in heat stroke. The oxygen should be applied loosely to the nostrils, so as to allow a free admixture of atmospheric air.

W. C. MACLEAN, M. D., LONDON.

When blood-letting was the rule for sunstroke recovery was the rare exception. There is now great unanimity of opinion on the treatment, and the lancet has no place in it. At the earliest possible moment, let the sufferer be carried to the nearest shade, stripped and *assiduously dashed with cold water, over the head, neck and chest*. If this be effectually and quickly done, the powerful impression on the cutaneous nerves will soon re-establish respiration, at first by gasps and catches, soon in a more regular and tranquil manner. It will also reduce the heat of skin. It may be required to be done again and again; in hospital it may be necessary to envelope the patient in a *wet sheet* and to ply the fan or punkah over him vigorously, until the skin is reduced to a



more natural temperature. The patient should be encouraged to *drink* freely; if vomiting follows it will often aid in relieving the congestion of the lungs. The *douche*, used as above described, is a powerful remedy, and as Dr. ABERCROMBIE long since pointed out, it may be abused, particularly if it is applied too long to the shaven scalp. MOREHEAD also cautions us against its prolonged use in a routine way when the skin is cold and clammy and the respiration sighing; under such circumstances we must restrict ourselves to dashing water over the face and chest. When the heat of the skin is excessive we may avail ourselves, if ice be at hand, of Dr. PARKES' suggestion, and give an *enema of ice cold water*. We should apply *ammonia*, with the usual caution, now and then, to the nostrils; the bowels being always constipated, the sooner they are relieved the better, by the use of purgatives and enemata. The occurrence of moderate diarrhœa seems to favor recovery. Support and a judicious use of stimulants must not be neglected. If sensibility be not restored and maintained by the *douche*, a *blister* should be applied at once to the nape, and if needs be, to the shaven head. There is much unanimity as to the good effects of this measure. Dr. BARCLAY has found chloroform inhalation useful in a convulsive form of the disease, attended with extreme nervous irritability, a class of cases in which the *douche* is inadmissible, from the agony it occasions. In some cases life was saved by this remedy; in all it was prolonged.

*Treatment of the Sequelæ.*—Great attention to the function of the skin forms an essential part of the treatment of all the varieties of sequelæ of sunstroke, for it is impaired in all. Frictions, bathing, exercise in the open air, are beneficial. When the headache is not fixed, but shifting, it will often be found to depend on a weak condition of the digestive organs, and careful treatment, suited to the particular features of each individual case, is required.

EDWARD JOHN WARING, M. D., LONDON.

Blood-letting was formerly much employed; but from the mortality which attended this treatment, in the hands of Dr. RUSSELL and others, it has fallen into comparative disuse. Dr. MOREHEAD, indeed, goes so far as to say, that he "should have no hesitation in altogether interdicting this proceeding in the treatment of sunstroke." This is, perhaps, rather too sweeping a direction; but it is certain that, except in young, plethoric constitutions, and where



vascular action runs high, by far the most successful treatment consists in cold affusion to the head, throat, chest, spine, and epigastrium, the application of ice to the spine, stimulants internally (ammonia, ether, weak brandy and water), and frictions to the surface. In the stage of reaction, leeches to the temples, or cupping at the nape of the neck, may be required.

The first thing to be done after removing the patient into the shade, is to dash cold water over the head, neck and chest. If this be effectually and quickly done, the powerful impression on the cutaneous nerves will soon re-establish respiration, at first by gasps and catches, and soon in a more regular and tranquil manner; it will at the same time reduce the heat of the skin. When the patient can swallow, cold water should be freely drank, and Dr. PARKES suggests the use of enemata of ice-cold water. The use of the douche to the head requires some discrimination, especially if the skin be cold and clammy, in which case it must be restricted to the face and chest.

### RESUMÉ OF REMEDIES.

*Chloroformum*, internally, and by inhalation, has been recommended.

*Morphia*, hypodermically, in the dose of gr.  $\frac{1}{4}$ , has been given with success by Dr. JAMES H. HUTCHINSON, in cases marked by nervous symptoms, such as convulsions, jactitation, delirium and general excitement.

*Oxygen* by inhalation has been recommended in heat stroke (p. 71).

*Quinia Sulphas* is regarded by WALLER (*India Medical Gazette*, July 1869), who has had a large experience in India, as a specific in this affection, whether the skin is hot and dry or cool and moist, and whether or not muscular spasm be present. It rapidly diminishes the stupor and spasm, restores consciousness, and cures the attack. He gives it at every stage of the attack, either by the mouth (gr.xx at first, and gr.x every successive hour), or if the patient be unable to swallow, hypodermically (gr.iss. injected in each arm).

\**Water*, freely drank, cold, is beneficial, as well as its use by free affusions.

*Stimulants* are useful by the rectum and mouth.

*Blood-letting* is rarely indicated, and often very dangerous.

### EXTERNAL REMEDIES.

*Cantharis*. A blister to the nape, or to the shaven head, produces excellent results if insensibility continue (p. 72).

*Enemata* of ice cold water have been advised (p. 72).

*Frigus*. The application of cold to the general surface of the body, by stripping the patient and steadily rubbing the entire skin with large pieces of ice, keeping, at the same time, pieces in each axilla, is a method of treatment employed at the Pennsylvania Hospital with success (*Pennsylvania Hospital Reports*, 1868, p. 380). Iced wine and water are given internally. Dashing cold water over the head, neck and chest is excellent practice (pp. 70, 71).



## INSOMNIA.

PROF. ROBERTS BARTHOLOW, M. D., CINCINNATI, OHIO.

Morphia and atropia may be combined for hypodermic injection, so as to procure sleep, care being taken that there is no excess of atropia, or an amount of atropia sufficient to antagonize the cerebral effects of the morphia. They should be used in the proportion of gr.  $\frac{1}{120}$ — $\frac{1}{80}$  of atropia to gr.  $\frac{1}{4}$ — $\frac{1}{2}$  of morphia. As the susceptibility to atropia varies immensely, the precise quantity to be employed in any case must be regulated accordingly.

C. E. BROWN-SÉQUARD, M. D., LONDON.

127. R. Potassii bromidi, ℥ss  
 Aquæ cinnamomi, f.℥ij. M.

A dessertspoonful a quarter of an hour before the last meal, and the same dose, or three teaspoonfuls, repeated at bedtime, for adults.

Excepting when pain is one of the causes preventing sleep (in which case the alkaloids of opium, aconite, or hyoscyamus should be employed), Dr. BROWN-SÉQUARD has found that this remedy has a most wonderful power to produce a quiet and refreshing sleep, without any drawbacks. In some cases it is necessary to increase the dose of the bromide, and to give also a small dose of narceine or codeine an hour before bedtime. In those affections in which the bromide of potassium is not powerful enough as a sleep-inducing agent, a warm bath of four, five, or six hours' duration is often successful.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

128. R. Assafoetidæ, gr. x  
 Extracti hyoscyami, gr. iij-v. M.

For one suppository. To be introduced at night, to quiet restlessness and induce sleep where it is not desirable to give opiates.

(GRAVES mentions that in persons of irritable and nervous disposition he has found musk or assafoetida, given more or less frequently during the day, effectual in procuring sleep at night.)

129. R. Pulveris digitalis, gr. iij  
 Extracti hyoscyami,  
 Camphoræ, āā gr. xij. M.

For 12 pills. One to be taken at night.

Prof. DA COSTA has found, in reference to the soporific and anodyne properties of *narceine*, that it appeared, in doses in which



morphia is prescribed, totally destitute of either; and in larger doses uncertain, and often palpably inert. It does not allay irritation. (Pennsylvania Hospital Reports for 1868.)

PROF. R. J. GRAVES, M. D., DUBLIN.

130. R. Tincturæ calumbæ,  
Tincturæ quassiaë,  
Tincturæ gentianæ,  
Tincturæ cinchonæ, aa f. ʒj  
Morphiæ muriatis, gr. j-ij. M.
- A teaspoonful thrice daily, in a small cup of tea, an hour before the evening meal, to stop the nausea, quiet the nervous irritability and induce sleep, particularly in the case of those who abuse alcoholic drinks.
131. R. Assafoetidæ, ʒj  
Morphiæ sulphatis, gr. ij  
Mucilaginis acaciæ, q. s.
- Divide into 30 pills. One or two at bedtime, in the insomnia of hypochondria, hysteria, and in general of nervous affections.
132. R. Chlorali, ʒiv  
Aquæ destillatæ, f. ʒv  
Syrupi, f. ʒiss. M.
- A tablespoonful from hour to hour, until sleep is produced.

PROF. WILLIAM A. HAMMOND, M. D., NEW YORK.

The principles which should prevail in the treatment of wakefulness may be arranged into two classes.

1st. Those which, by their tendency to soothe the nervous system, or to distract the attention, diminish the action of the heart and blood vessels, or correct irregularities in their function, and thus lessen the amount of blood in the brain.

2d. Those which directly, either mechanically or through a specific effect upon the circulatory organs, produce a similar effect.

In slight cases, the measures belonging to the first class often prove effectual. Among them are music, monotonous sounds, gentle frictions of the surface of the body, soft undulatory movements, the repetition by the insomniac of a series of words till the attention is diverted from the existing emotion which engages it, and many others of similar character. In persistent insomnia, however, these are nugatory.

Chief among the means embraced under the second head are those which tend to improve the general health of the patient.

*In regard to food*, while it is an error to suppose, as is generally done, that a moderately full meal, eaten shortly before bedtime, is necessarily productive of wakefulness, there is no doubt that this



condition is induced by an excessive quantity of irritating or indigestible food. A hearty supper of plainly cooked and nutritious food rather predisposes to sleep. This is due to the fact that the process of digestion requires an increased amount of blood in the organs which perform it, and consequently the brain receives a less quantity. This hypnotic effect is neutralized, however, when the food is immoderate in amount or irritative in quality, as it then, either by the pressure upon the abdominal vessels or through a reflex action on the heart, augments instead of diminishes the quantity of blood circulating in the brain. Attention should, therefore, be paid to the diet of the insomnolent. As a rule people are under-fed. This is especially true of women. The tone of the system is thus lowered, and local congestions of different parts of the body are produced. If the brain be one of these, wakefulness results.

Most of the cases of insomnia in women are of the passive variety, and require not only nutritious food, but *stimulants*. Whisky is generally to be preferred to brandy and many kinds of wine. Nothing can be better, as a good stimulant, and at the same time tonic, than *Tarragona wine*, drank at dinner, to the extent of a glass or two. Next must be ranked good *lager beer*.

There are cases in which *coffee* induces sleep. Our author mentions several in which passive wakefulness was entirely and speedily cured by a cup of strong coffee, taken for three or four nights in succession, at bedtime. In females of languid circulation and a consequent tendency to internal congestions, it is particularly useful.

The employment of stimulants is only of service in the asthenic or passive form of insomnia; in the sthenic or active form they would, of course, increase the difficulty.

*Physical exercise* in the open air, extended to the point of inducing a slight feeling of fatigue, is productive of good effects.

The *warm bath* calms nervous irritability and determines blood from the head. Putting the feet in water of the temperature of 100° F. will often induce sleep, particularly in children, after other means have failed.

*Cold water* (32° F.) applied directly to the scalp has a good influence in those cases in which the individual is strong, the heart beating with force and frequency, and the mental excitement great. It is not admissible in the asthenic form of wakefulness.



Among the purely medicinal agents, *bromide of potassium* holds the first rank. It diminishes the amount of blood in the brain, and allays any excitement which may be present in the sthenic form of insomnia. The flushed face, the throbbing of the carotids and temporals, the suffusion of the eyes, the feeling of fullness in the head, all disappear as if by magic under its use. It may be given in doses of from ten to thirty grains; the latter quantity is seldom required, but may be taken with perfect safety in severe cases (see F. 127).

133. R. Zinci oxidi,  
Confectionis rosæ,

℥ij  
q. s.

For 20 pills. One thrice daily, the last dose being taken just at bedtime.

Our author seldom employs *opium*; there are cases of insomnia, however, in which its influence is decidedly beneficial.

134. R. Tincturæ hyoscyami,

f. ℥ij.

From one to two teaspoonfuls in water, at bedtime.

Especially indicated in those cases which are accompanied by great nervous irritability. A good preparation of this drug is difficult to obtain. It possesses no advantage over bromide of potassium, to which it is not equal in any respect.

Our author has nothing to say in commendation of valerian, assafoetida and other antispasmodics. Tonics, especially iron and quinine, are almost always useful, even in the active forms of the affection.

In insomnia dependent upon severe and long-continued mental exertion, all means will fail if the individual will not consent to use his brain in a rational manner. Proper intervals of relaxation must be insisted upon, and in some cases mental rest. Travel is always of the greatest advantage in such cases.

C. HANFIELD JONES, M. B., LONDON.

It is often well, when sleeplessness depends upon hyperæsthesia, to give not only a *stimulant*, but also some *digestible nourishment*, about the time of going to rest, or even in the course of the night, when debility to a serious extent exists. A *mustard poultice* to the epigastrium is also an excellent hypnotic in some cases, probably owing to its stimulating a languid solar plexus. Among the



various soporifics, it is doubtful whether any are more potent, especially for the weakly and hyperæsthetic, than prolonged exposure to the *cold open air*. This should be so managed as not to cause great fatigue, and be followed by a sufficient meal. The effects of a *monotonous voice* in inducing sleep are well known, particularly when the speaker or reader is dictating some matter not without a considerable tinge of dullness. The old monk's prescription for sleeplessness, viz., to tell your beads, was sound advice. *Hyoscyamus* frequently proves itself a really valuable remedy. It is well given in enema, in a dose not exceeding that for the mouth.

ANTOINE RUPPNER, M. D., NEW YORK.

135. R. Tincturæ hyoscyami, gtt.x-xx.  
For a single hypodermic injection.
136. R. Tincturæ cannabis, gtt.x-xx.  
For one hypodermic injection.

THOMAS HAWKES TANNER, M. D., LONDON.

137. R. Extracti stramonii, gr.ij  
Extracti hyoscyami, gr.xviii  
Extracti lupulinæ, ʒij. M.

For 12 pills. One to be taken every four hours until relief is obtained, in chronic disorders attended with suffering; in diseases of the nervous system accompanied with pain and restlessness; and in the dyspnoea of phthisis and emphysema.

Our author has seen good results in cases of wakefulness, particularly when there is any debility, from a tumblerful of port wine negus, or of mulled claret, or of white wine whey, taken the last thing at night. Where the skin is hot and dry a glass of cold water appears to be useful.

When there is any physical cause it must be removed. If the bowels are constipated or the excretion unhealthy, laxatives and alteratives will be required. Patients afflicted with heart-burn should take three or four *bismuth lozenges* before retiring to rest. If sedative drugs are necessary, resort should first be had to *hyoscyamus*, *hops*, *Indian hemp*, or *conium*. When stronger drugs are needed the following may be prescribed:—

138. R. Morphiæ muriatis, gr-j-ij  
Spiritus chloroformi,  
Tincturæ cardamomi compositæ, āā f.ʒj. M.  
Dessertspoonful at bedtime;



Or,

139. R. Extracti opii, gr.ijj  
 Extracti hyoscyami, gr.xxiv. M.  
 For 6 pills. One at bedtime.

Frequently the exhibition of opiate enemata or suppositories is preferable to the use of this drug by the mouth. The following may be employed :—

140. R. Tincturæ opii, ℥xx-xxx  
 Mucilaginis amyli, f.3ij. M.  
 For one enema.

141. R. Pulveris opii, gr.j-ij  
 Saponis, gr.x. M.  
 For a suppository.

EDWARD JOHN TILT, M. D., LONDON.

142. R. Extracti hyoscyami, gr.xxiv  
 Extracti cannabis indicæ, gr.ijj. M.  
 For 12 pills. One or two to be taken at night, or oftener.

But Dr. TILT gives Indian hemp in one-grain doses, as soon as he finds it agrees, and sometimes in larger doses. If he desires a tonic as well as sedative effect, he orders

143. R. Extracti hyoscyami,  
 Quiniæ sulphatis, āā gr.xij. M.  
 For 12 pills. One to be taken every night.

This is a preparation that he has often found to be well borne by women who could not bear large doses of any tonic; some have continued to take it for months, not leaving it off during the menstrual period; and it will not interfere with the action of any purgative that may be required.

In one case of sleeplessness, one drachm of *lupulin*, in the form of pill, produced sound sleep after opium and hyoscyamus had failed.

CHARLES WEST, M. D., LONDON.

Our author states that the value of *tincture of hyoscyamus* as a sedative in the diseases of children can scarcely be too highly estimated. He orders

144. R. Tincturæ hyoscyami, ℥.xviiij  
 Syrupi, f.3ijj  
 Aquæ, f.3ix. M.  
 Dessertspoonful every six hours, for a child a year old.







## ACUTE MENINGITIS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

When arachnitis arises from mechanical injuries, the treatment is generally by *bleeding*, active *purgatives*, especially by *calomel* and *scammony*, and by *cold applications* to the head.

In advanced life general blood-letting is rarely indicated, but in vigorous constitutions it is sometimes necessary. As a rule, local blood-letting is more safe and more beneficial, especially when aided by keeping the head well raised and by the constant application of cold water to the scalp, or the occasional use of bladders filled with crushed ice. The bowels should be opened as rapidly as possible, unless the patient is feeble, emaciated or greatly exhausted. For this purpose employ

146. R. Hydrargyri chloridi mitis, gr.ij-ijj  
Extracti colocynthidis compositi, gr.iv-v.

Divide into 2 pills. Both to be taken at a dose, in cases accompanied with gout or Bright's disease, and followed in a few hours by a dose of salts and senna.

A fair proportion of *nutriment* must be given, in the form of milk, strong beef tea, sago, tapioca or arrowroot; and the patient should be kept in a quiet and darkened room. The more active symptoms being subdued, but not till then, a blister should be placed on the nape of the neck, if coma should ensue. If nervous irritability continues during convalescence *hyoscyamus* or *chloride of ammonium* may be given. The bowels are to be kept open and the strength supported by unstimulating nutriment. Tranquillity of mind and body must be preserved.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

In the treatment of acute meningitis it is not generally proper to bleed from the arm, but *leeches* may be applied to the brow and behind the ears, and, if the strength of the patient permit, the application may be repeated. The shaven head may be covered with *cold compresses*, and an active *purge* of calomel and jalap administered, viz. :—

147. R. Hydrargyri chloridi mitis, gr.ij  
Extracti jalapæ, gr.vijj. M.

Divide into 2 pills and order both to be taken.

In the latter stages of the disease, if there be coma and other



signs of cerebral palsy, apply a large *blister* to the nape of the neck, and rub the following pustulating ointment on the head:—

148. R. Olei tiglii,	℥xv	
Adipis,	℥ss.	M.

One-fourth part to be rubbed into the skin every eight hours, until an abundant eruption is produced.

Still more efficacious than these derivatives are *douche baths*, pouring cold water over the head from a pitcher held some distance above it. The patient almost always recovers consciousness as this is being done, but it must be repeated at intervals of a few hours to secure a permanent result; with each successive employment the number of pitcherfuls is to be increased. Frictions with *mercurial ointment* and continued doses of *calomel* are much employed.

J. S. RAMSKILL, M. D., LONDON.

The application of cold to the head, by *irrigation*, often produces an almost magical effect. A small stream of cold water should be allowed to run on the shaven head from a vessel placed a little above it. This method of treatment should be employed with caution in children and aged persons.

### RÉSUMÉ OF REMEDIES.

*Antimonii et Potassii Tartras* has been exhibited in repeated fractional doses with benefit. It is contra-indicated if the patient be very young, if there have been prodromic symptoms, and if the inflammatory condition be not well marked.

*Hydrargyrum*. In regard to the use of mercury in acute meningitis, authorities differ. Dr. RUSSELL REYNOLDS has never seen any good results from its administration. Dr. J. S. RAMSKILL recommends it as a valuable remedy, and states that the system should be quickly brought under its influence, by combining with its internal administration (in small and frequently-repeated doses), the use of inunctions in the groin and axilla.

*Opium* is a most valuable agent in epidemic meningitis, when administered at the outset of the attack in cases in which the inflammatory predominates over the septic element.

*Cathartics* are indicated, unless the patient be very feeble (F. 146, 147).

### EXTERNAL REMEDIES.

*Cantharis*. Blisters to the nape of the neck or vertex, although inadmissible during the acute stage of meningitis, are sometimes of great value after the excitement has passed.

*Frigus*. Cold affusions are recommended (p. 82).

*Oleum Terebinthinæ*. Turpentine stupes applied to the extremities, often do good, as also do turpentine enemata.

For Tubercular Meningitis, see Hydrocephalus.



## NEURALGIA.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

When the neuralgia is superficial, compresses steeped in the solution of atropia have a good effect.

149. R. Atropiæ sulphatis, gr.v  
Aquæ destillatæ, fʒiij.

Renew the compresses several times in twenty-four hours. Continue them for at least an hour each time, and cover them with oiled silk to prevent evaporation. This is the formula recommended by TROUSSEAU.

FRANCIS E. ANSTIE, M. D., LONDON.

1. CONSTITUTIONAL TREATMENT.—(a.) *Nutritive remedies*: fat, cod-liver oil, butter, etc. (b.) *Preparations of iron* are useful (the carbonate especially) only where there is actual anæmia. (c.) The *nerve tonics* (quinine, arsenic and zinc) are beneficial in some cases and not so in others. Sulphate of quinine is useful in malarial neuralgia, and also, in small doses, in some cases of non-malarial neuralgia, especially in ophthalmic branches of the fifth pair. Arsenic is useful, and more widely so than quinine, in both the above classes of neuralgia. Valerianate of zinc has also been employed with benefit. (d.) *Constitutional remedies* directed against a real or presumed depravation of the blood by some special poison; as, iodide of potassium and corrosive sublimate against syphilitic neuralgia; colchicum against gouty neuralgia; and iodide of potassium against rheumatic neuralgia.

2. *Narcotic stimulant remedies for neuralgia*.—At the head stands *opium*, represented by *morphia*. Next, *belladonna*, or more exactly, *atropia*. The *subcutaneous injections* of these substances are of considerable benefit. Best medium, hypodermic dose of morphia gr.  $\frac{1}{8}$ ; or atropia gr.  $\frac{1}{20}$ – $\frac{1}{30}$ . Belladonna (gr.  $\frac{1}{8}$ – $\frac{1}{2}$  of the extract), given by the mouth, has a special influence on painful affections of the pelvic organs. *Indian hemp*, internally (in pills of gr.  $\frac{1}{4}$ – $\frac{1}{2}$ , one every night), is very effective in certain forms of neuralgia, especially migraine and clavus. *Chloride of ammonium* (doses of gr. 10–20) is useful in migraine, clavus, intercostal and hepatic neuralgias. *Sulphuric ether* is supremely useful in certain visceral neuralgias, as gastralgia, uterine or ovarian neuralgia. *Turpentine pearls* are beneficial in sciatica. *Aconitia* is, ordinarily, too depressing. *Alcohol* is most useful taken at meals, or especially for the relief of pain.



3. EXTERNAL REMEDIES.—Flying *blisters*, of extreme and general use; *mustard plasters*; liniments and ointments (best is chloroform, diluted with 7 parts of oil liniment); and *electricity* (continuous low tension current from Bunsen's or Daniell's battery) are recommended.

## A. BERTRAND, M. D., PARIS.

- |         |                   |         |    |
|---------|-------------------|---------|----|
| 150. R. | Veratriæ,         | gr.v    |    |
|         | Morphiæ muriatis, | gr.iiij |    |
|         | Adipis,           | 3j.     | M. |
- To be employed in friction during the paroxysms of facial neuralgia.

## H. BOURDON, M. D., PARIS.

- |         |                       |        |    |
|---------|-----------------------|--------|----|
| 151. R. | Morphiæ acetatis,     | gr.iss |    |
|         | Chloroformi,          | ℥iv    |    |
|         | Olei amygdalæ dulcis, | f.3iss |    |
|         | Ceræ albæ,            | 3ss    |    |
|         | Adipis,               | 3v.    | M. |

Melt together the wax and lard and add the oil; mix the morphia and chloroform by shaking together in a wide-mouth flacon; add the melted wax and lard and shake until cold. To be applied to the painful parts several times a day.

## C. E. BROWN-SÉQUARD, M. D.

- |         |                           |                   |
|---------|---------------------------|-------------------|
| 152. R. | Extracti belladonnæ,      | gr. $\frac{1}{6}$ |
|         | Extracti stramonii,       | gr. $\frac{1}{3}$ |
|         | Extracti cannabis indicæ, | gr. $\frac{1}{4}$ |
|         | Extracti aconiti,         | gr. $\frac{1}{3}$ |
|         | Extracti opii,            | gr. $\frac{1}{2}$ |
|         | Extracti hyoscyami,       | gr. $\frac{2}{3}$ |
|         | Extracti conii,           | gr. j             |
|         | Pulveris glycyrrhizæ,     | q. s.             |

For one pill.

According to circumstances BROWN-SÉQUARD gives, without producing any great constitutional disturbance, three, four, and even five pills in a day, and sometimes in about eight or ten hours, for the relief of neuralgic or other pains. There must be, therefore, some influence exerted by some of these substances upon the others, diminishing their bad and not their good effects. He recommends the following *hypodermic injection*:—

- |         |                    |                                   |
|---------|--------------------|-----------------------------------|
| 153. R. | Morphiæ sulphatis, | gr. $\frac{1}{2}$ — $\frac{2}{3}$ |
|         | Atropiæ sulphatis, | gr. $\frac{1}{25}$ .              |

For one injection, in gtt. xx of distilled water.

The doses BROWN-SÉQUARD at first employed were gr.  $\frac{1}{2}$  of the sulphate of morphia to gr.  $\frac{1}{60}$  of the sulphate of atropia. He now employs those given above, the antagonistic effects of morphia and atropia on the brain rendering it possible, while securing the good effects against pain of the two remedies, to use safely, or at least



without great or lasting cerebral or cardiac disturbance, large doses of these narcotics.

In this connection, we may give the doses employed by other authorities in administering morphia and atropia subcutaneously in neuralgia.

Dr. CHARLES HUNTER, of London, gives, as a rule, never to use, in the first injection, in any case, more than one-half the stomachic dose of these alkaloids for males, and not more than a third for females.

Dr. RUPPNER, of New York, places the minimum dose of morphia at gr.  $\frac{1}{8}$ ; the maximum, gr.  $\frac{3}{4}$ ; the minimum dose of sulphate of atropia, gr.  $\frac{1}{60}$ ; the maximum, gr.  $\frac{1}{30}$ .

Dr. TILT, of London, states that the initial hypodermic dose of morphia (used alone) for a woman, should not exceed gr.  $\frac{1}{8}$  (the acetate being the salt he prefers), and that of atropia should not exceed (used alone) gr.  $\frac{1}{10}$ . In combination, gr.  $\frac{1}{8}$  of the sulphate of morphia with gr.  $\frac{1}{30}$  of the sulphate of atropia.

PROF. HARVEY L. BYRD, M. D., BALTIMORE.

- |         |                           |        |    |
|---------|---------------------------|--------|----|
| 154. R. | Olei menthæ piperitæ,     | f.ʒiij |    |
|         | Olei origani,             | f.ʒij  |    |
|         | Olei sassafras,           | f.ʒj   |    |
|         | Olei terebinthinæ,        | f.ʒiss |    |
|         | Tincturæ opii,            | f.ʒss  |    |
|         | Tincturæ aconiti radicis, | f.ʒij  |    |
|         | Alcoholis,                | f.ʒij. | M. |

For local application in neuralgia and chronic rheumatic pains.

DR. CAMINITI, ITALY.

- |         |                    |       |    |
|---------|--------------------|-------|----|
| 155. R. | Morphiæ muriatis,  | gr.xv |    |
|         | Collodii flexilis, | f.ʒj. | M. |

Apply by means of a small brush on the parts, the seat of the neuralgic pains. If the pain return periodically, give the sulphate or valerianate of quinine.

- |         |                     |       |    |
|---------|---------------------|-------|----|
| 156. R. | Ammoniaci,          | ʒijss |    |
|         | Spiritus lavandulæ, | ʒxv   |    |
|         | Camphoræ,           | ʒiv   |    |
|         | Alcoholis,          | f.ʒj. | M. |

This liniment is useful in tic douloureux. A compress moistened with it is applied to the painful part, covered with dry linen, and retained until the skin reddens; then the reddened skin is to be rubbed with a solution of morphia until the pain ceases.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

- |         |            |       |    |
|---------|------------|-------|----|
| 157. R. | Aconitiæ,  | gr.iv |    |
|         | Veratriæ,  | gr.xv |    |
|         | Glycerinæ, | f.ʒij |    |
|         | Cerati,    | ʒvj.  | M. |

To be rubbed over the painful parts, care being taken to see that there is no abrasion of the skin.



(Prof. GROSS sometimes employs veratria ointment in cases of neuralgia, of the strength of  $\mathfrak{z}\text{j}$  to  $\mathfrak{z}\text{j}$ ).

158. R. Potassii bromidi,  $\mathfrak{z}\text{ss}$   
 Succii conii,  $\text{f.}\mathfrak{z}\text{x}$   
 Aquam cinnamomi, ad.  $\text{f.}\mathfrak{z}\text{ij}$ . M.

A dessertspoonful to be taken three times a day.

Useful in epileptiform neuralgia.

159. R. Strychniæ sulphatis,  $\text{gr.}\text{ss}$   
 Quiniæ sulphatis,  $\text{gr.}\text{xv}$   
 Cinchonæ sulphatis,  $\mathfrak{z}\text{j}$   
 Pulveris rhei,  $\mathfrak{z}\text{ss}$   
 Extracti gentianæ, q. s. M.

Divide into 30 pills. One to be taken four times a day, in intercostal neuralgia of malarial origin, associated with constipation.

DR. DUMAS, MONTPELLIER, FRANCE.

160. R. Castorei,  $\text{gr.}\text{xxx}$   
 Camphoræ,  $\text{gr.}\text{xv}$   
 Pulveris opii,  $\text{gr.}\text{viij}$   
 Confectionis rosæ, q. s.

To be divided into 15 pills, and used for nervous affections of the abdominal organs in women.

H. W. FULLER, M. D., LONDON.

Our author recommends highly the external application of aconitia in neuralgia, and in intercostal rheumatism. When from the situation or other circumstances, it is difficult to apply the ointment, he directs the following solution:—

161. R. Aconitiae,  $\text{gr.}\text{ijj-iv}$   
 Spiritus rectificati,  $\text{f.}\mathfrak{z}\text{vj}$   
 Glycerinæ,  $\text{f.}\mathfrak{z}\text{ij}$ . M.

To be applied by means of a camel-hair brush until the pain is relieved. It should only be employed in chronic cases, it proving ineffective so long as there is acute action. Even when the relief of pain is only temporary, this is an advantage of no inconsiderable importance.

Another local application recommended by Dr. FULLER, is the following:—

162. R. Extracti belladonnæ,  $\mathfrak{z}\text{i}$   
 Tincturæ opii,  $\text{f.}\mathfrak{z}\text{j}$   
 Glycerinæ,  $\text{f.}\mathfrak{z}\text{ij}$ . M.

A piece of lint wet with this mixture, and covered with oiled silk, often affords great relief when placed along the course of the nerve.

The following local application is also often useful:—

163. R. Acidi hydrocyanici diluti,  $\text{f.}\mathfrak{z}\text{ss}$   
 Glycerinæ,  
 Aquæ rosæ,  $\text{āā}$   $\text{f.}\mathfrak{z}\text{ij}$ . M.

To be painted over the seat of pain with a camel-hair brush.



The following local application is also recommended :—

164. R. Tincturæ opii,  
 Spiritus ætheris compositi,  
 Glycerinæ, āā f.ʒiij  
 Extracti belladonnæ, ʒj. M.

Speedy relief often follows the application of a strip of flannel soaked in this mixture along the course of the nerve, and then covered with oiled silk to prevent evaporation.

DR. GRAY, FRANCE.

165. R. Tincturæ aconiti,  
 Chloroformi, āā f.ʒijss  
 Adipis, ʒx. M.

After applying the ointment to the affected part, the place is covered with cotton.

H. GREEN, M. D., NEW YORK.

166. R. Zinci valerianatis, gr.xv  
 Extracti hyoscyami, gr.xxv. M.

Divide into 30 pills. Two or three a day in facial neuralgia.

167. R. Zinci sulphatis, gr.xv  
 Morphine sulphatis, gr.ij  
 Strychniæ, gr.ij  
 Pimentæ,  
 Extracti hyoscyami, āā gr.xxx. M.

Divide into 30 pills. One every five or six hours in neuralgia unconnected with any organic lesion.

PROF. S. D. GROSS, M. D., PHILADELPHIA.

168. R. Quiniæ sulphatis, ʒij  
 Morphine sulphatis, gr.j  
 Strychniæ, gr.ʒ  
 Acidi arseniosi, gr.j  
 Extracti aconiti, gr.x. M.

Divide into 20 pills. One to be taken three or four times a day. Add to the recipe ferri sulphatis, ʒij, if the system be anæmic.

This pill is useful in a great variety of cases of neuralgia. Its effects should, of course, be carefully watched.

PROF. WILLIAM A. HAMMOND, M. D., NEW YORK.

169. R. Extracti belladonnæ, gr.v.

Divide into 20 pills. One thrice daily, the dose to be increased as necessary.

The use of belladonna is chiefly to change the habits of the system. This drug, although at one time much overlauded, is very efficient in the treatment of neuralgia. Our author has not used atropia often, as the dose is difficult to graduate.

*Hypodermic injections* of morphia may be used during the par-



oxysms of pain. In their use avoid the face; a good point is the inside of the arm.

170. R. Tincturæ aconiti, f. ʒss.  
 Rub with a rag upon the painful part until a sense of pricking is felt.

This is next in value to the subcutaneous use of morphia. The action is often very powerful. Dr. H. once caused temporary paralysis of the arm in a lady, by the too free application of the tincture.

*Chloroform* may be used externally, internally, or by inhalation, not carried to insensibility. Repetitions of the inhalation may break up the paroxysm.

*Hypophosphites* are useful; may be given in doses of from ten to twenty grains. They act by setting free phosphorus in the stomach.

*Galvanism*.—The direct galvanic current may be successfully used both for the relief of the paroxysm and for breaking up the habit of the disease. For the first apply the poles so that the position is near the seat of the greatest pain, and pass the current continuously for several minutes. To change the habit of the system, apply one pole to the nape of the neck, and the other over the course of each sympathetic nerve, moving it along the neck. DUCHENNE says, that neuralgia can generally be relieved by Faradization. Dr. H. has not been so uniformly successful, but often effects a cure by the application mentioned.

The use of tea generally aggravates neuralgia, while coffee, on the contrary, does not, but if strong is often of service.

DR. RAIMBERT, FRANCE.

171. R. Extracti opii,  
 Extracti belladonnæ,  
 Extracti stramonii, āā gr. xv  
 Aquæ laurocerasi, f. ʒiij. M.

Introduce from four to six drops of this solution into the ear, close the canal with cotton, and incline the head to the opposite side. A useful mode of treatment in facial and dental neuralgias.

PROF. P. RICORD, M. D., PARIS.

172. R. Extracti hyoscyami,  
 Extracti belladonnæ, āā ʒj  
 Glycerinæ, f. ʒj. M.

Anoint several times a day, with this liniment, the testicle affected with neuralgia. Employ at night suppository containing from one-half to three-fourths of a grain of the extract of belladonnæ.



173. R. Extracti belladonnæ, ʒss  
 Chloroformi, m℥  
 Glycerinæ, f.ʒss. M.  
 Anoint with this liniment, several times a day, the affected parts in neuralgia of the anus, when there exists neither fistula nor any lesion of the rectum.

THOMAS HAWKES TANNER, M. D., LONDON.

174. R. Quiniæ sulphatis, gr.xxiv  
 Extracti belladonnæ, gr.iv  
 Camphoræ, gr.xxx  
 Confectionis rosæ, q. s.  
 Divide into 12 pills. One to be taken two or three times a day, in cases of neuralgia in which the attacks are periodic.

175. R. Quiniæ sulphatis, ʒj  
 Liquoris arsenici chloridi, f.ʒiij-iv  
 Acidi sulphurici aromatici, f.ʒij  
 Syrupum zingiberis, ad. f.ʒiij. M.  
 One teaspoonful in two tablespoonfuls of water directly after breakfast, dinner and tea, in severe neuralgia.

176. R. Ammonii chloridi, ʒiij  
 Aquæ, f.ʒiij. M.  
 A tablespoonful in water every hour, while the paroxysm of pain is on. If after the fourth dose there be no diminution of pain, it will be useless to persevere. As soon as the pain is relieved the dose may be reduced to a dessertspoonful three times a day.

EDWARD JOHN TILT, M. D., LONDON.

177. R. Extracti hyoseyami, ʒj  
 Extracti belladonnæ, gr.v  
 Butyri cocoæ, q. s. M.  
 Make into 20 *suppositories*, round, in pill form. One to be introduced into the rectum at night. This is the suppository Dr. TILT most frequently prescribes, for it relieves pain without constipating.

178. R. Extracti opii, ʒj  
 Extracti belladonnæ, gr.x  
 Butyri cocoæ, q. s. M.  
 Make into 20 round *suppositories*. One to be well introduced into the bowel at night.

179. R. Morphię sulphatis, gr.iiij  
 Butyri cocdæ, q. s. M.  
 Divide into 6 *vaginal suppositories*. One to be used at night.

180. R. Liquoris opii (Battley's), f.ʒj  
 Tincturæ hyoseyami, f.ʒj  
 Aquæ, f.ʒiij. M.  
 One tablespoonful of this, or double the quantity, to be added to a little warm milk for an *enema*.

181. R. Morphię sulphatis, gr.viij  
 Atropiæ sulphatis, gtt.iv  
 Olei rosæ, gtt.ij  
 Alcoholis, f.ʒss  
 Oleum olivæ, ad. f.ʒiv. M.  
 For a liniment. To be shaken before use.



The sulphate of atropia is preferable to atropia, because it is more soluble, and oil is much better than glycerine as a constituent of liniments.

Another excellent, and elegant, and sedative liniment is the following:—

182. R.	Atropiæ sulphatis,	gr.viij	
	Morphiæ sulphatis,	gr. xvj	
	Aconitiæ,	gr.ij	
	Acidi sulphurici diluti,	℥v	
	Alcoholis,	f.℥ss	
	Oleum olivæ,	ad. f.℥iv.	M.

Or, if a stimulant effect is also desired,

183. R.	Chloroformi,	f.℥ss	
	Spiritus terebinthinæ,	f.℥j	
	Camphoræ,	℥ij	
	Olei lavandulæ,	℥xx	
	Oleum olivæ,	ad. f.℥vj.	M.

The first four ingredients should be mixed before adding the oil, and the liniment should be well shaken before it is applied.

184. R.	Atropiæ sulphatis,	gr.ij	
	vel		
	Morphiæ sulphatis,	gr.x	
	Glycerinæ,	f.℥ss	
	Olei neroli,	gtt.iv	
	Unguenti glycerinæ,	℥j.	M.

Make an ointment, to be rubbed into the skin twice a day.

#### DR. TOURNIÉ, PARIS.

185. R.	Zinci valerianatis	gr.v	
	Extracti opii,	gr.iss	
	Extracti hyoscyami,	gr.ijss	
	Confectionis rosæ	q. s.	

Divide into 6 pills. Give one every three hours until three are taken, in tic douloureux. Repeat the same medication the following day.

#### JAMES TURNBULL, M. D., LIVERPOOL.

186. R.	Extracti aconiti,	℥ij	
	Adipis,	℥ij.	M.

A useful ointment in neuralgic pains.

187. R.	Quiniæ sulphatis,	gr.vij	
	Morphiæ sulphatis,	gr.℥.	M.

Divide into 3 powders. Give one from hour to hour, in periodical neuralgia.

188. R.	Morphiæ sulphatis,	gr.iss	
	Sacchari,	gr.xxx.	M.

Divide into 6 powders. One morning, evening and night, in facial neuralgia.



## AUGUSTUS WALLER, M. D., GENEVA.

Our author has found that certain substances, such as atropia, strychnia, morphia, and the tincture of aconite, when mixed with chloroform and applied to the skin, are absorbed rapidly; but if alcohol is used instead of chloroform, absorption is delayed or altogether prevented. The ability of introducing rapidly into the blood these active narcotics, without the use of the hypodermic syringe, will be of much importance in those cases in which even a slight puncture of that instrument is dreaded. It will also be of value in those instances in which it is necessary or advisable to keep up the effect for a long time, as in hydrophobia, chronic neuralgia, etc.

189. R. Aquæ calcis, f. ʒj  
 Spiritus terebinthinæ, f. ʒjss  
 Saponis, q. s.

Introduce the lime water, the essence of turpentine, and a small quantity of soap in a matrass, shake, and add, little by little, more soap, until the mixture acquires the consistence of a pomade. Useful in pains of a neuralgic or rheumatismal character.

## GUY'S HOSPITAL, LONDON.

190. R. Liquoris plumbi subacetatis,  
 Tincturæ opii,  
 Mellis, aa f. ʒij  
 Confectionis rosæ, ʒj. M.  
 Make a liniment.

This is known in the pharmacopœia of the hospital as *linimentum plumbi opiatum*, and is much used.

## LONDON HOSPITAL.

191. R. Tincturæ aconiti,  
 Linimenti saponis, aa f. ʒj. M.  
 To be used as an anodyne liniment.

## RÉSUMÉ OF REMEDIES.

\**Acidum Arseniosum* is a remedy of a deservedly high reputation in neuralgia, having a wider range of application than quinine. In malarial cases it should be given in larger doses (℥ x-xxx, thrice daily, of Fowler's solution) than in non-malarial. In the latter, ℥ v of Fowler or gr.  $\frac{1}{8}$  of the *arseniate of sodium*, in pill, with extract of lupulin, will prove effectual in the cases amenable to this remedy. It may also be given hypodermically and endermically.

\**Aconitum* is a remedy of great value in chronic cases of neuralgia, when the secretions are in order and the general health not much impaired. Its use should, therefore, be often preceded by purgatives and tonics. In acute cases it is not indicated before all signs of active disease



have been subdued by other means. Its external use should usually precede its internal administration, which need only be resorted to in case of failure of the former. The combination of quinine with aconite seems to increase its efficacy, and add permanency to the relief afforded by it. This combination is especially indicated in anæmic or debilitated patients, where there is no apparent nerve lesion or exciting cause.

*Æsculus Hippocastanum.* The alkaloid of horse chestnut, *esculin*, has been given in doses of gr.xv, twice daily, with success, by French physicians, in the treatment of periodic neuralgia.

*Æther.* In simple neuralgia, particularly of the nerves of the head, Prof. STILLÉ recommends combining the anodyne effect of ether with its revulsive effects, by applying it on small compresses covered with some solid substance, immediately over the points where the painful nerve emerges from its bony canal, or where it in any other way becomes superficial.

*Alcohol.* Dr. ANSTIE has several times observed, in acute neuralgia, that after large doses of various narcotics had been tried in vain, the first real and substantial relief was obtained by the use of a moderate dose of alcohol; the consequence of overdosing the remedy is, however, nearly always disastrous.

*Ammonii Chloridum* is often of signal benefit (F. 176).

*Ammonii Valerianas* is favorably spoken of by some writers.

*Anthemis.* Chamomile, in substance, in doses of gr.lx, or in a very concentrated infusion, is administered with success in France, in neuralgia of the fifth nerve.

*Apiol* is said to be of service in intermittent neuralgia.

*Assafœtida* is of little value in neuralgic affections.

\**Belladonna*, whether used externally or internally, ranks among the first of the sedatives and anodynes of service in neuralgia (p. 83). It occasionally fails of effect, however. BROWN-SÉQUARD combines it with six other narcotics, for the relief of neuralgic pains (F. 152). *Atropia* is preferred by some to the preparations of belladonna, but the dose is more difficult to graduate.

*Bebericæ Sulphas* has proved successful in some cases, after the failure of quinine. In doses of gr.x, night and morning, it is more effective than in smaller doses.

*Brominium.* See Potassii Bromidum.

*Caffea* is much employed by Belgian physicians. Prof. HAMMOND finds that it is often of service, but that tea generally aggravates neuralgia.

*Cannabis Indica* is ranked as a neuralgic remedy, next in value to opium and belladonna, and their alkaloids.

*Chloral* is sometimes of service in this affection.

*Chloroformum* always acts as a palliative in, but rarely cures neuralgia.

*Cinchona*, see Quiniæ Sulphas.

*Colchicum* is recommended in conjunction with carbonate of ammonia and cinchona, by Dr. COPLAND. It should be preceded by cathartics.

*Conium* is occasionally useful, both externally and internally administered, but is inferior to opium and belladonna.

*Creasotum* has been given with success by Dr. ELLIOTSON in facial neuralgia.

*Croton Chloral Hydrate*, in doses of gr.ij every hour, has been found to promptly mitigate paroxysms of neuralgic pain.

*Digitalis* has proved of service in the hands of Dr. FULLER, in cases in which the pain is intermittent. He gives ℥x-xx of the tincture three or four times a day.



*Fatty Remedies*, like cod-liver oil, olive oil, butter and cream, are often of great service.

*Ferrum* (particularly *Ferri Carbonas*) is useful in cases associated with anæmia; in others it fails.

*Galbanum* has been found of service in neuralgia dependent upon uterine derangement, given as follows:—

192. R.	<i>Pilulæ galbani compositæ,</i>	gr. iij-vij	
	<i>Pilulæ hydrargyri,</i>	gr. iij.	M.

One pill to be taken every other night.

*Glonoïn* (nitro-glycerin) in very small doses (one drop diluted with 100 of rectified spirit) has been recommended, but should be used with caution.

*Guaiacum* is of service in forms of neuralgia of a rheumatic character. From ℥xx to ℥xl of the ammoniated tincture may be given every five hours, until relief is obtained.

*Hyoscyamus* is considered by Dr. HARLEY as more efficacious than belladonna in neuralgic affections of the internal viscera.

*Iodinium*, see *Potassii Iodidum*.

*Ipecacuanha*. Dover's powder at night often affords much comfort. An eighth or a quarter of a grain of morphia may be added when indicated.

\* *Morphia*, hypodermically injected, affords speedy and often permanent relief. Dr. ANSTIE has cured cases by three or four injections of gr.  $\frac{1}{4}$ , which would have been very tedious under the older plan of treatment. Many cases yield in a week or ten days to hypodermic injections twice daily.

*Nux Vomica* has been used with occasional success.

*Oleum Cajuputi* may be employed with advantage, either externally or internally, in cases unconnected with inflammatory action.

\* *Oleum Morrhuæ* is sometimes successful after the failure of quinine and other ordinary remedies.

*Oleum Terebinthinæ* is not unfrequently of benefit. It is equally appropriate to the inflammatory and non-inflammatory states of neuralgia and it is said relapses are less frequent after it than after most other remedies.

*Oleum Tigllii* has been used with success in some cases, in which it has seemed to exercise a special influence apart from its purgative action.

*Opium*, both internally and externally used, is of great service in certain cases; but ordinarily, far inferior to morphia injected subcutaneously (F. 160).

*Oxygen* inhalation sometimes relieves or cures neuralgia.

*Physostigma* has exerted local anodyne effects in several cases of neuralgia reported.

\* *Plumbi Acetas* is said to be a safe and effective remedy in many cases of superficial neuralgia, and even in neuralgia of the abdominal viscera.

\* *Potassii Bromidum*, in full doses, often effectually relieves some forms of neuralgia. Dr. DA COSTA sometimes prescribes it with conium (F. 158).

*Potassii Chloras*, in doses of gr. xxx a day, has, in three weeks' time, it is reported, produced wonderful effects in facial neuralgia.

*Potassii Iodidum* is of service in neuralgic affections dependent upon an inflammatory state of the nerve coverings.

\* *Quinice Sulphas* is of great value in all neuralgias of malarial origin, and in a certain number of non-malarial cases. In the former, it should be given in full doses (gr. v-xx) shortly before the expected attack; in



the latter, doses of gr. ij-ijj thrice daily are as large as are likely to benefit. Dr. ANSTIE says that he knows of no circumstances which indicate beforehand that quinine will be useful in non-malarial cases, excepting that in neuralgia of the ophthalmic branches of the fifth it is more effective than in other non-malarial neuralgias. Prof. GROSS frequently combines quinine with morphia, strychnia, arsenic and aconite, in the treatment of neuralgia (F. 168). Dr. TANNER combines it with belladonna and camphor (F. 174), and with the chloride of arsenic (F. 175).

*Salix* is recommended, but rarely used.

*Sodii Arsenias* is of service in neuralgia where other arsenical preparations are badly borne.

*Sodii Carbonas*, often, in full doses, speedily arrests neuralgia connected with acidity of the stomach.

*Sodii Hypophosphis*, in drachm doses, given in beef tea, thrice daily, has proved successful.

*Stramonium* is only found of benefit by Dr. FULLER, where the symptoms shift from limb to limb, but never when the disease is stationary.

*Strychnia* is of use in epileptiform neuralgia.

*Valeriana* exerts a favorable influence in neuralgia associated with hysteria. The ammoniated tincture may then be given combined with guaiacum.

*Zinci Valerianas* is a serviceable remedy in those cases in which the disease is purely nervous, and in those which accompany uterine derangement.

*Cathartics* are indicated when there is an overloaded state of the colon. Turpentine, by the mouth or by enema, and croton oil, are valuable purgatives in these cases.

*Emetics* are useful in commencing the treatment of neuralgia arising from dyspepsia, and in those cases which are regularly intermittent an emetic should be given an hour before the expected paroxysm.

\**Stimulants*. Dr. ANSTIE has found, in some cases of acute neuralgia (particularly of the fifth nerve), that after the failure of various narcotics a moderate dose of alcohol has at once given relief. He also states that in certain chronic neuralgias of the aged, where the power of digesting ordinary food is almost suspended by reflex irritation, an almost exclusively alcoholic diet, continued for some time, occasionally works wonders.

#### EXTERNAL REMEDIES.

\**Aconitia* locally applied over the seat of pain is a most powerful palliative in neuralgic affections. Dr. FULLER, having observed that it fails so long as signs of active disease exist, restricts its use to purely chronic cases (F. 161). Dr. DA COSTA sometimes prescribes it with veratria, in ointment (F. 157).

\**Aconitum* is a valuable local application in chronic cases (F. 186). The tincture may be combined with chloroform (F. 165), with soap liniment (F. 191), or with turpentine, etc. (F. 154).

*Acupuncture* is of use after inflammation has subsided, in those cases in which there is effusion within the sheath of the nerve. It then promises speedy and effectual relief, but is useless, and may be prejudicial in all other cases.

*Æther*. The local application of atomized ether is now usually resorted to.

*Antimonii et Potassii Tartras*. Tartar emetic counter-irritation is sometimes employed over the affected part, but its use is disapproved of by Dr. FULLER, on account of the pain and discomfort it occasions.



*Aqua Ammoniacæ.* The following method of applying strong water of ammonia in neuralgia, is recommended by Prof. STILLÉ: Take small disks of cloth, about a half or three-quarters of an inch in diameter, and apply them, moistened with the ammonia, over such points in the course of the affected nerve as are tender upon pressure, or are the seat of spontaneous pain. Cover the pieces of cloth with coins, buttons, or other convenient bodies, to prevent evaporation. Cotton contained in a thimble and saturated with the caustic liquid forms a still more convenient arrangement. As soon as slight vesication occurs, the pain is relieved, yet not so thoroughly as when the same effect has been obtained by means of cantharides. The addition of morphia to the vesicating liquid renders its effects more prompt and certain.

*Belladonna* is much used externally (F. 162, 172, 173). TROUSSEAU highly recommends the external application of belladonna when the neuralgia is superficial. In such cases may also be employed a compress saturated with a solution of atropia (F. 149). Dr. FLINT uses atropia in preference to belladonna, in liniments and ointments. These applications, however, are all inferior to the hypodermic injection of atropia.

\* *Cantharis.* Blisters should be tried in cases of any severity; if the hypodermic injection of morphia and atropia has failed, flying blisters should be employed. Dr. ANSTIE states that in numerous early cases, one or two flying blisters, applied successively over the different points in the course of the painful nerve, have at once and permanently arrested the disease.

*Calor.* The actual cautery and the moxa are sometimes employed in severe cases.

*Chloroformum* may be applied pure (especially serviceable when the pain is localized in a small space) or in liniments (F. 173, 183). "Gelatinized chloroform," made by incorporating 1 part of chloroform and 2 parts of white of egg, is a useful form for application.

*Dry Cupping* is recommended by Dr. GRAVES.

*Electricity* seems to be of service only in those cases of a purely neuralgic character, unconnected with irritation in distant parts of the body; then the continuous galvanic current is often of essential service. If employed before the pain has subsided, the interrupted current very generally aggravates the patient's sufferings. See Prof. HAMMOND's remarks, p. 88.

*Enemata* of turpentine and of opium are often beneficial.

*Frigus.* Ice applied to the spine, by means of his spinal bag, is recommended by Dr. CHAPMAN.

*Hydrargyri Iodidum Viridum.* The following ointment has been strongly recommended:—

193.	R.	Hydrargyri iodidi viridi,	℞ij	
		Adipis,	℥j.	M.

*Hydrocyanicum Acidum Dilutum* is recommended locally by Dr. FULLER (F. 163).

\*\* *Hypodermic Injections.* Dr. ANSTIE says that the discovery of the hypodermic method has instituted a new era in the treatment of severe neuralgias. Atropia, or morphia, or the two combined, may be used. The face should be avoided in making the injection. Prof. BARTHOLOW says: "The neuralgias are best treated by the combined morphia and atropia solution. There are several reasons for this: much larger doses of morphia may in this way be injected without danger to the patient; and the larger the quantity, as BROWN-SÉ-



QUARD has shown, the greater the curative power. Morphia and atropia combined are more effective than either singly. The systemic effects during the time of maximum narcosis, and also after the narcosis has disappeared, are much less unpleasant and depressing when the two agents are combined than when morphia is used alone. Sometimes atropia is better borne than morphia, and *vice versa*: in this case, the agent whose effects are least unpleasant should be in excess." He recommends the following proportions:  $\frac{1}{48}$  to  $\frac{1}{120}$  of a grain of atropia,  $\frac{1}{4}$  to  $\frac{1}{2}$  of a grain of morphia. The physiological effects of atropia here predominate, but the toxic effects are guarded by the morphia. For the facial neuralgia of pregnancy he uses morphia alone. This treatment promptly cures the affection, a fact first pointed out by Dr. H. R. STORER, of Boston. "These cases, as is well known, are extremely obstinate under the old methods of treatment, and those who have suffered from them on former occasions are exceedingly grateful for the relief so promptly and permanently afforded by the hypodermic method." Dr. RUPPNER reports a number of cases of the various forms of local and general neuralgia treated with success by the hypodermic injection of the acetate of morphia. *Caffein* has also been found to relieve neuralgia when thrown into the subcutaneous cellular tissue. In one instance in the practice of Dr. ANSTIE, of severe neuralgia of the superficial branches of the circumflex in the shoulder, two successive injections of caffein (over the biceps) appeared to cut short the malady altogether. In a case of dorso-costal neuralgia, attending shingles, a daily injection of caffein, during five or six days, notably mitigated the pain on each occasion.

*Iodoform* has been recommended for local use in neuralgias, in the form of a saturated solution in chloroform.

\**Leeches* applied along the course of the nerve often afford immediate relief after the failure of anodynes and other local measures. They are particularly indicated when there is inflammatory action or much vascular excitement.

*Monarda*. Oil of horsemint, in liniment, with camphor and laudanum, sometimes affords prompt relief.

*Morphia* is second to no remedy for the relief of neuralgia, employed *hypodermically* (see above). The *endermic* application (gr.  $\frac{1}{2}$ —gr. j, sprinkled on a blistered surface over the seat of pain) is sometimes beneficial.

*Oleum Cajuputi* is occasionally of service locally applied, in cases unconnected with inflammatory action.

*Oleum Tigllii*, in liniment alone, or diluted with soap liniment, makes an excellent friction in many cases.

*Opium* is recommended locally by Dr. FULLER (F. 162), and others, but its use is inferior to the subcutaneous injection of morphia.

*Rectal Suppositories* of belladonna, hyoscyamus, and opium, are sometimes employed (F. 177, 178).

*Sinapis*. Sinapisms over the seat of pain often afford relief.

*Stramonium* is sometimes employed locally in the same manner as belladonna, to which, however, it is inferior.

*Turkish Baths* have been employed in some cases with advantage.

*Vaginal Suppositories* (medicated pessaries) are also occasionally used. They are highly recommended by Dr. TILT (F. 179).

*Veratria*, when there are no active or inflammatory symptoms present, is often beneficial, externally applied, the ointment being rubbed in diligently until it causes a sense of heat and tingling. It is inferior, however, to aconitia (F. 150, 157).



## PARALYSIS.

F. W. HEADLAND, M. D., LONDON.

*Strychnia* is only successful in paralysis in cases where the injury to the nervous centre has healed up, and when the limb continues paralyzed merely because the motor nerves have lost the power of transmitting the necessary impulse, from having been so long unaccustomed to discharge this office. On the other hand, when the lesion of the nervous centre is of recent occurrence, or when it has been of so serious or extensive a nature as to admit of no repair in the course of time, the remedy will be ineffectual.

CHARLES HUNTER, M. D., LONDON.

*Strychnia* is a useful remedy, given hypodermically, in paralysis. If, however, after three or four injections, improvement does not take place, it is almost useless to continue its employment.

SIR THOMAS WATSON, LONDON.

No good can reasonably be expected from *strychnia*, but much harm, unless the cord be free from organic disease. The *tincture of cantharides* has sometimes a very beneficial effect in thirty-minim to half-drachm doses.

## RÉSUMÉ OF REMEDIES.

*Aloetic* purgatives often prove beneficial conjoined with *nux vomica*.

*Ammonii Formias* is recommended by Dr. RAMSKILL as a stimulant in cases of chronic paralysis accompanied by general torpor.

*Argenti Nitras*, in doses of gr.  $\frac{1}{2}$ -j daily, has been employed with success, by BOUCHUT, in paraplegia and progressive general paralysis, resulting from sexual or alcoholic excess.

*Arnica* has been employed with good results.

*Cantharis*. Sir. THOMAS WATSON recommends tincture cantharides in paraplegia. Generally, when it does good, it acts as a diuretic.

*Cinchona*. Full doses of quinine promptly break up intermittent paralysis.

*Ergota* is recommended in those forms of paralysis arising from spinal congestion, in paraplegia complicated with menstrual irregularity (MEADOWS), and in the constipation of the paralytic, after the most powerful cathartics have failed (WARING CURRAN).

*Ferri et Strychniæ Citras* is serviceable in paralysis associated with anæmia.

*Hydrargyrum*. Dr. MAUDSLEY says: "To administer mercury systematically in general paralysis, as has been done, is as unaccountable in theory, as it undoubtedly is pernicious in practice."

*Nux Vomica*. See *Strychnia*.

*Oxygen* inhalations have been employed by Dr. RAMSKILL.

*Petroleum* has proved serviceable, used externally and internally.



*Phosphorus* has been successfully employed in some cases, in the form of the oil (made by gently warming 2 parts of phosphorus in 100 parts of almond oil, in a closed flask, for about twenty minutes, and decanting off, when cool, the oil from the undissolved phosphorus. Dose, grt. iij-vij, in emulsion, or with cod-liver oil).

*Potassii Iodidum* occasionally proves successful in some forms of paralysis.

\**Strychnia* is a remedy much prescribed in paralysis, but very variously reported upon. The different results obtained in different hands have been accounted for by the impurity of the drug, the inability of the patient to bear the remedy, and its injudicious application to all forms of the disease. When the brain is still in a disordered state, and sanguineous effusion exists, it will prove injurious rather than beneficial, having the effect of exciting inflammatory action. When, however, the effusion has been absorbed, and the paralysis continues, as it were, from habit, strychnia will be found of great service. It is most beneficial in those forms of paralysis not dependent upon disease of the nervous centres, as in lead, mercurial and rheumatic palsies. See opinions of Drs. HEADLAND, HUNTER, and Sir THOMAS WATSON (p. 97).

As for the manner of administering strychnia in paralysis, it may be commenced in doses of gr.  $\frac{1}{32}$ – $\frac{1}{16}$  two or three times a day, and the quantity cautiously increased. After continuing it for a few days or a week, slight convulsive twitchings or a creeping sensation will be experienced in the paralytic limb. It should then be discontinued for two or three days, and resumed as before.

It may be employed hypodermically with great advantage in some cases.

*Sulphur* gives very good results, according to Dr. GRAVES, in paralysis of an asthenic or chronic character, when employed as a sequel to a course of strychnia. He uses it in the form of an electuary and in baths.

*Toxicodendron* is recommended by TROUSSEAU in paraplegia from concussion of the spinal marrow, administered as follows: gr. v the first day of treatment, increased daily by the same amount until gr. lx a day are reached. It is asserted that it strengthens rather than enfeebles digestion, and causes no inconvenience other than occasionally slight strangury.

#### EXTERNAL REMEDIES.

*Armoracæ Radix.* Poultices of fresh horseradish root form a ready counter-irritant in paralytic affections.

*Cajuputi Oleum* makes an excellent embrocation for paralytic limbs. Diligently rubbed in it stimulates the parts and relieves pain when present.

*Delphina* is believed, by Dr. TURNBULL, to be more useful in paralysis than veratria, from its property of exciting the circulation in the affected part.

*Mucuna.* The setæ maintained on the affected limb by a bandage have been employed as a local stimulant in paralysis.

*Myristica.* The oil, diluted with soap liniment, forms a useful stimulating embrocation.

*Oleum Tiglii*, in liniment, with or without the addition of soap liniment, may be employed with advantage as a stimulating friction.

*Petroleum* has proved serviceable in some cases.

*Rosmarinus* is a useful ingredient in ointments and liniments, to be rubbed over paralyzed muscles.

*Sinapisms*, with the addition of powdered capsicum, act as speedy derivatives, useful in some cases of paralysis.



*Sulphuricum Acidum.* The following ointment, perseveringly employed, has resulted beneficially :—

194. R.	Acidi sulphurici,	f. ʒj	
	Adipis,	ʒj.	M.

It acts as a powerful irritant.

*Veratria* ointment, diligently used, has occasionally been followed by great improvement.

*Cold Shower Baths*, in cases of paralysis consequent on severe inflammatory attacks of the brain and spinal column, are often attended with benefit, but sometimes fail, and may even aggravate the symptoms.

*Turkish Baths*, cautiously employed, sometimes benefit.

*Cantharis*. Blisters to the spine are useful when there is reason to expect effusion within the theca.

*Electricity*, carefully employed, is highly beneficial in appropriate cases. It should never be resorted to in recent cases, if there be reason to suppose that effused blood or coagulum remains unabsorbed, nor so long as there are any febrile or inflammatory symptoms present. It is of no benefit in cases with organic lesion of the nervous system. Its greatest utility lies in cases of purely *local* paralysis. Great and terrifying shocks are rarely beneficial where small and repeated shocks have failed. Both faradization and galvanism have been employed with success. Electro-puncture has been used with good results in paraplegia and hemiplegia.

*Frigus*. Ice to the spine is recommended by Dr. CHAPMAN.

*Issues and Setons* are sometimes employed with advantage.

*Leeches* at the verge of the anus are beneficial, where there is suppression of a habitual discharge, as from piles.

#### HYSTERICAL PALSY.

\**Cantharis*. Dr. RUSSELL REYNOLDS says that he knows of no mode of treatment in hysterical paralysis comparable in efficiency with that of placing narrow strips of blister completely around the affected limbs. It succeeds perfectly and rapidly, after all other measures have failed, and is worthy of trial in all cases.

#### LEAD PALSY.

\**Strychnia* is of especial benefit in this form of paralysis.

*Galvanism* proves highly beneficial in these cases.

#### MERCURIAL PALSY.

*Argenti Nitras* has been employed with success. The dose should be gr.  $\frac{1}{4}$  daily, at first, and gradually increased until gr. iij in the course of the day are taken.

\**Electricity* is very useful in these cases.

\**Potassii Iodidum* is useful in very small and cautiously increased doses.

\**Strychnia* is very beneficial in this form of paralysis.

*Sulphur Baths* are considered, by Dr. LETTSON, almost as a specific in mercurial palsy.

#### RHEUMATIC PALSY.

*Conium* has been successfully employed in some cases.

\**Strychnia* is of great benefit in most cases of paralysis resulting from rheumatism.

\**Electricity* is employed with the same great advantage in this, as in lead and mercurial palsies.



## PROGRESSIVE LOCOMOTOR ATAXIA.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

Persistent counter-irritation over the spine (by *blisters*, *moxa*, *actual cautery*, or *ice*) is indicated, cautiously employed. *Phosphorus*, in the form of phosphates of metals and salts, of *diluted phosphoric acid* as a drink in the daily allowance of water, and of *phosphate of sodium* as an aperient, may be given with advantage. *Nitro-muriatic acid* as a tonic, and *cod-liver oil* as a dietetic, may be of use. Flannel should be worn next the skin, and a chamois leather jacket over it. The diet ought to be of the most nutritious character. *Cannabis indica* and *belladonna* give the greatest relief to the pains.

If used at all, *electricity* ought only to be employed during the pauses in the course of the disease, and then with great caution, in the form of a constant current, rather than the induced current in faradization.

W. LAMBERT, M. D., AMHERSTBURG, ONTARIO, CANADA.

195. R. Acidi phosphorici diluti, f.3vj  
Syrupi, f.3iij.

A teaspoonful in water thrice daily, gradually increased to a dessert-spoonful, together with the application of electricity (New York *Medical Journal*, February, 1869).

PROF. TROUSSEAU, PARIS.

Our author advises not to employ setons, moxas, etc., along the spine, as they cause great pain and irritation, and do no possible good. *Electricity* is the great remedy which he recommends, combined with *flagellations* prudently employed, with *belladonna* to abate pain, with *sulphurous baths*, which have been very successful. *Hydrotherapy* may be of great service in the constitutional treatment, as well as other appropriate remedies of a like action. Preparations of *mercury* and of *iodide of potassium* are of great good, where there exists a syphilitic taint. TROUSSEAU recommends his "compresseur" of the prostate in the spermatorrhœa which sometimes attends the outset of the disease. *Turpentine* is useful in the vesical manifestations of the malady. Hygienic rules are to be strictly observed.

PROF. EBEN. WATSON, M. D., GLASGOW.

196. R. Tincturæ physostigmatis, m.v-xxv.  
For one dose, to be given every half hour.



Five minims of the tincture equals one-half grain of the extract of calabar bean. (*The Practitioner*, September, 1869).

### RÉSUMÉ OF REMEDIES.

\**Argenti Nitras* is recommended by Dr. ALTHAUS, as useful in a large proportion of cases (*Lancet*, December 30th, 1865). It should be given in doses of gr.  $\frac{1}{16}$ — $\frac{1}{2}$  two or three times daily. Its combination with hypophosphite of soda seems to add to its efficacy. After its use has been continued for four or six weeks consecutively, its administration should be interrupted for two or three weeks, and a slightly aperient mineral water given. The nitrate may then be resumed for a month or two. The gums should be carefully watched, and on the appearance of the slightest blue coloration, the remedy should be discontinued. Nitrate of silver has been thus employed in ataxia with variable success. In some cases it disagrees, and has to be stopped; in others it seems without effect, but in the majority of cases it has proved very useful. It is a remedy upon which considerable reliance can be placed in this disease.

*Belladonna* and *Cannabis Indica* are both said, by Dr. AITKEN, to give great relief to the pains.

*Hydrargyrum* is advised, by Prof. TROUSSEAU, when the syphilitic taint is present.

*Nitro-muriaticum Acidum* is an excellent tonic in these cases (p. 100).

*Oleum Morrhuæ* is of use as a dietetic.

*Phosphorus* is recommended by Dr. AITKEN. The administration of the phosphates of the metals and salts may be conjoined with the use of dilute phosphoric acid as a drink, in the daily allowance of water, and with phosphate of soda as an aperient (F. 195).

*Physostigma* has been used with advantage (F. 196).

*Potassii Iodidum* has been employed, but not very favorably reported upon. It is useful where there exists a syphilitic taint.

### EXTERNAL REMEDIES.

*Counter-Irritation* over the spine, by blisters, actual cautery, moxa, or ice, persistently but cautiously employed, is sometimes resorted to, but the practice is deprecated by TROUSSEAU (p. 100).

\**Electricity* has been employed with good results. Dr. AITKEN says it must be resorted to with great caution, and only during the pauses in the disease (p. 100). Prof. TROUSSEAU highly recommends its use. Prof. NIEMEYER considers it a very active remedy, but cannot claim any success from its use, though he has had an excellent apparatus in his clinic, and treated all his cases with it during four years, in the manner advised by REMAK. He intends hereafter to continue the use of electricity, but instead of letting the current act on the spinal column, as hitherto, he will try the current through the spinal nerves, as advised by BENEDICT.

*Sulphur Baths* are recommended by Dr. ALTHAUS as an adjunct to the nitrate of silver treatment. They relieve the pain and diminish the numbness (*Lancet*, December 30th, 1865).



## SCIATICA.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

197. R. Emplastri epipasticæ. 1½ in. x 5 in.  
 To be applied over the affected part. Let it draw for five or six hours,  
 poultice it, and then remove the cuticle and dress with
198. R. Morphię sulphatis, gr. ¼  
 Pulveris marantę, gr. ij. M.  
 For 1 powder. Also ten grains of Dover's powder, to be taken at  
 night.

DR. LABORDE, FRANCE.

199. R. Olei terebinthinę, f. 3viii  
 Chloroformi, aa  
 Tincturę opii, f. 3ij. M.  
 A useful liniment in sciatica. To be rubbed on by means of a piece  
 of flannel, several times a day.
200. R. Aquę ammonię, f. 3v  
 Olei terebinthinę, aa  
 Olei amygdalę dulcis, f. 3j. M.  
 Rub on three times a day, in obstinate sciatica.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

201. R. Olei terebinthinę, f. 3j  
 Mellis, f. 3j. M.  
 For an electuary. A tablespoonful twice daily.

ROMBERG also speaks very highly of this as a specific remedy in  
 the treatment of sciatica.

THOMAS HAWKES TANNER, M. D., LONDON.

202. R. Sodii sulphatis, ʒij-iv  
 Sodii carbonatis, ʒj  
 Sodii chloridi, gr. xv  
 Cretę preparatę, gr. x  
 Ferri carbonatis saccharatę, gr. xv. M.  
 Make a powder and direct it to be taken early in the morning, in half  
 a pint of water.

In some cases in which Dr. T. could detect no cause for the  
 sciatica, a cure has been effected by this treatment, with the use of  
 the hot-air bath twice a week.

EDWARD WAKES, M. D., LONDON.

203. R. Extracti ergotę fluidi, f. 3ij  
 Aquę cinnamomi, f. 3iij. M.  
 A dessertspoonful in water every four hours.



Tinctura ferri chloridi may be added if indicated. When ergot is likely to be useful, its good effects commence immediately.

### RÉSUMÉ OF REMEDIES.

*Aconitum* is, in the opinion of Dr. FULLER, not only a valuable and efficient remedy in many obstinate forms of this disease, but is also safe and manageable, when properly administered and carefully watched.

*Ammonii Chloridum* is recommended by Dr. ANSTIE in the milder cases of sciatica occurring in the young.

\**Atropia*, hypodermically, is a successful form of treatment, now much employed.

\**Belladonna* is one of the most valuable sedatives and anodynes we possess in this affection.

\**Cannabis Indica* ranks next in value to belladonna and opium.

*Conium* is sometimes of service, and may be resorted to when belladonna and opium fail or are contra-indicated.

*Creasotum* has been employed internally by Dr. ELLIOTSON, with apparent benefit.

*Digitalis* is recommended by Dr. FULLER as a reliable remedy, when the pain is intermittent and of a purely neuralgic character. He gives either the powdered leaves (gr. j-iss), or the tincture (℥x-xx thrice daily).

*Ergota* has been advised (F. 203).

\**Morphia*, given hypodermically, affords speedy and often permanent relief. It may also be employed endermically (F. 198).

*Nitro-muriaticum Acidum*, in full doses, (℥vi-x), is an effectual remedy in sciatica accompanied with malaria. Its action should be aided by an occasional brisk purgative, the cold shower bath, or a cold douche down the spine, followed by friction and change of air and scene.

*Oleum Tiglii* has been employed with success internally.

*Opium*, although of great occasional service, is less used since the introduction of the more effective treatment by the hypodermic injection of morphia.

*Potassii Iodidum* is strongly advised by Dr. GRAVES, in doses of ʒj in the course of the day, dissolved in a decoction of sarsaparilla, in cases of a subacute or chronic character, and where the patient has to follow his out-door avocations.

*Strychnia* is inadmissible in acute or inflammatory cases, but in others, nuxvomica has been used with occasional success.

\**Terebinthinae Oleum* is considered by Dr. ANSTIE as a remedy worthy at least a trial, in doses of ℥x thrice daily, in the more obstinate cases of sciatica. It is, however, usually very disagreeable to the patient. Dr. NIEMEYER also recommends it in electuary (F. 201), and Dr. ROMBERG speaks of it almost as a specific.

*Cathartics* are often indicated and of service.

### EXTERNAL REMEDIES.

*Aconitia* is a very certain and powerful palliative applied over the seat of pain (F. 157, 161).

*Aconitum* is frequently employed externally (F. 154, 165, 186, 191).

*Acupuncture* is limited to purely chronic cases, and to those in which there is effusion within the sheath of the nerve. In appropriate cases, it promises speedy and effectual relief.

*Belladonna* may often be employed with benefit as a local application (F. 162).



*Cantharis*. Great and immediate relief sometimes results from applying a blister to the heel.

*Chloroform* is advised externally by Dr. FULLER, who says that a strip of flannel, soaked in chloroform, placed along the course of the nerve, and covered with oiled silk to prevent evaporation, proves sometimes extremely serviceable.

*Morphia* may be employed endermically (F. 198), but its use in this way is inferior to subcutaneous injection. See Hypodermic Injections, below.

*Opium* is often used externally (F. 162).

*Pix Burgundica*. Enveloping the whole thigh in a Burgundy pitch plaster, has, according to TROUSSEAU, cured sciatica after the failure of blisters and the endermic use of morphia.

*Sulphur*, externally, is highly praised by Dr. FULLER, who finds it very generally efficacious and worthy of a trial in every case, when all active symptoms have been subdued or are absent. He sprinkles a piece of new flannel, thickly, with precipitated sulphur, encases the whole limb in this, from the foot upward, and covers it with oiled silk or gutta-percha, which has the effect not only of increasing the warmth and confining the vapor of the sulphur, but of obviating the odor, annoying to the patient. It should be kept applied night and day. Absorption takes place rapidly, and the breath, urine, stools and perspiration unmistakably attest its presence in the system.

*Dry Cupping* often proves beneficial.

*Electro-puncture*, which should only be applied during the intermissions of pain, is sometimes serviceable.

*Hypodermic Injections*. Prof. BARTHOLOW strongly recommends *Atropia* hypodermically. He says: "The principal triumphs of atropia over neuralgia have been in cases of sciatica. It is now admitted that atropia is one of the best remedies for this disease. First proposed and used by Mr. HUNTER, it was afterwards employed by BÉHIER, COURTY, OPPOLZER, LORENT, and others. It has been found, however, that distant injection, and even injection into the subcutaneous tissue of the affected thigh, do not produce such good results as throwing the fluid deeply into the neighborhood of the affected nerve. More frequently, indeed, than in any other form of neuralgia, except the most obstinate and protracted cases of tic douloureux, the nerve itself, or its sheath, has undergone structural alteration; the limb is often diminished in size, its temperature and sensibility lowered, and the power of its muscles impaired. Under these circumstances more advantage is to be derived from local than from distant injection, just as LUTON, BERTIN, and RUPPNER have cured such cases by the injection of irritants into the affected parts. In severe cases of sciatica gr.  $\frac{1}{25}$  of sulphate of atropia may be injected; but it should not be forgotten that this quantity will excite very severe symptoms in susceptible subjects. Generally gr. will produce decided atropinism. Cessation of the pain is not immediate upon the systemic effects, as Mr. HUNTER originally pointed out; indeed, the pain is often at first increased, but improvement takes place after a variable interval, and is often more permanent than after the morphia injection." When atropia fails *Morphia* may be tried, or both may be employed together. Morphia injected into the thigh, four inches below the hip joint, and over the course of the nerve, has been called "almost the only remedy for sciatica." Prof. BARTHOLOW says, in regard to the subcutaneous use of morphia, that "in severe and protracted cases, in which changes in the nerve and in the nutrition of the limb have taken place, permanent relief cannot always be guaranteed to the patient; but the injections, steadily continued in the maximum doses, will, in a great majority of cases, effect a cure finally."



## TETANUS.

PROF. ROBERTS BARTHOLOW, M. D., CINCINNATI, OHIO.

Of all the remedies which have been proposed for tetanus, *physostigma* must be regarded as the most useful. All cases treated by calabar bean are not managed with equal judgment and skill. Dr. FRASER has indicated (*The Practitioner*, vol. I, p. 83) the following mode of using it: Commence the treatment by subcutaneous injection; repeat such injection until the system is decidedly affected, then administer the remedy by the mouth, in a dose three times as large as is found necessary by subcutaneous injection. This plan may be safely followed, even in a child of nine years. If the administration by the mouth continue to produce remedial effects it should be persevered with; but in severe cases, subcutaneous injection should alone be employed, and it should always be preferred when severe and continued spasms occur, when a fatal result is imminent from exhaustion, and when apnoea threatens a fatal termination. No arbitrary rules of dosage can be laid down. For an adult, gr. j of the extract, by the mouth, or gr.  $\frac{1}{2}$ , by subcutaneous injection, will generally suffice to begin with. This should be repeated in two hours, when its effects will usually have passed off, and the succeeding doses modified according to the experience thus gained. The doses are to be continued in increasing quantities until the physiological effect, in diminishing reflex excitability, is produced, or until the sedative action of the drug on the circulation is carried to a dangerous extreme, or until constant nausea and vomiting compel a discontinuance.

WILLIAM FENWICK, M. D., GLASGOW.

204. R. Pulveris physostigmatis,  
Pulveris rhei, aa ʒj. M.  
Divide into 20 powders. One to be taken every four hours during the  
day, also an occasional dose at night, making the average quantity  
of fifteen grains of each in twenty-four hours.

Under the influence of this combination, Dr. F. has seen none of the depressing effects which the bean produces by itself. He reports (*Glasgow Medical Journal*, May, 1869) the improvement under this treatment as marked.

DR. E. FICK, REVAL.

205. R. Morphine sulphatis, gr.  $\frac{1}{2}$   
 Aquæ, ℥vj. M.  
 For one hypodermic injection, between the shoulder blades, near the spine.



G. OLLIVER, M. D., LONDON.

206. R. Atropiæ, gr.  $\frac{1}{80}$ .

In the form of a granule, one every three hours; and linimentum belladonnæ to be rubbed over the spine and rigid muscles every six hours.

A successful case of treatment by this method is reported in the *British Medical Journal* for August 22d, 1868. The patient was kept under the influence of atropia for three weeks. He then quickly and completely recovered his usual health under iron and quinine.

C. V. RIDENT, M. D., LONDON.

207. R. Extracti physostigmatis, gr. viij  
Alcoholis, f. 3j. M.

The extract of calabar bean to be well rubbed down in the alcohol. The dose is ten minims (gr.  $\frac{1}{8}$  of the extract).

Our author records (London *Lancet*, October 31st, 1868) a case of traumatic tetanus in which this dose, ten minims of the tincture, was given every hour. It appeared to retard the progress of the case and to ameliorate the severity of the symptoms, but never fully to control them.

The following directions are given in the *British Pharmacopœia* for making the

## EXTRACT OF CALABAR BEAN.

208. R. Calabar bean, in coarse powder, 1 pound  
Rectified spirit, 4 pints.

Macerate the bean for forty-eight hours, with one pint of the spirit, in a close vessel, agitating occasionally, then transfer to a percolator, and when the fluid ceases to pass, add the remainder of the spirit so that it may slowly percolate through the powder. Subject the residue of the bean to pressure, adding the pressed liquid to the product of the percolation; filter, distill off most of the spirit, and evaporate what is left in the retort, by a water-bath, to the consistence of a soft extract.

B. ROEMER, M. D., ST. LOUIS, MISSOURI.

According to our author (St. Louis *Medical and Surgical Journal*, July, 1873), a good summary of the treatment of tetanus is as follows:—

1. *Division of a nerve* can be of benefit only if practiced very early; amputation is similarly practicable, but generally of little avail, because decided symptoms have already been developed.



2. *Local applications* and general attention to the wound are of the utmost importance, to prevent complications, and to insure local quietude and avoid derived irritation. *Fresh air* is, for a like reason, instrumental in successful management of tetanus.

3. General and unconditional *quiet* and *rest* around the patient are enjoined; all noises, even to speaking in an elevated tone, are to be interdicted, remembering that sudden death has often followed after exciting impressions.

4. *Supporting nourishment*, in concentrated form, and stimulants, should supply the exhaustion in a disease which is not characterized by disorganization of any vital organ.

5. In cases where the patient is plethoric, the pulse full but not frequent, and where there exists a disposition to, or symptoms of, isochronic inflammatory action, *venesection*, *leeching* and *cupping* are indicated in the outset, and should be promptly but carefully practiced. The subsequent action of the therapeutic agent is thereby rendered more certain.

6. *Purgatives* of prompt action are necessary in all instances, and should be repeated and interchanged, until a desired effect is obtained, aided by enemata if demanded.

7. *The selection of the anti-tetanic* should be made according to the most promising statistics on tetanus.

PROF. EBEN. WATSON, M. D., GLASGOW.

209. R. Tincturæ physostigmatis,

℥v-xxv.

For one dose, to be given every half hour.

Five minims of the tincture equals one-half grain of the extract of calabar bean.

### RÉSUMÉ OF REMEDIES.

\**Aconitum* in large doses has been employed by a number of practitioners, and deserves further trials. There seems to be great tolerance of the drug in this disease. It acts by diminishing the irritability of that portion of the nervous centre which controls reflex muscular action.

\**Æther* has been found to be very useful in arresting tetanic symptoms in the wounded. Cases, both of idiopathic and traumatic tetanus, cured by the inhalation of ether, have been reported.

*Alcohol*. Stimulants, first proposed by Dr. RUSH, in this disease, are now rarely trusted to alone. Large doses of wine, brandy and porter, have been given with success, in a number of reported cases.

*Allium* has been administered internally, in this disease, and by frictions along the spine and limbs, with alleged success.

*Antimonii et Potassii Tartras* has, it is said, proved effectual in nauseant and emetic doses.



\**Atropia* and *Belladonna* have been successfully employed in a number of cases (F. 206). *Atropia* is given also hypodermically, but with uncertain results.

*Brominium*, see *Potassii Bromidum*.

\**Cannabis Indica* has been largely employed, but with very diverse results. It has been given in the form of the extract (gr. iij) or of the tincture (℞xxx.), repeated every half hour, hour, or two hours, the object being to produce and maintain narcotism.

*Chloral* appears to have been efficacious in a number of cases.

\**Chloroformum*. The inhalation of chloroform in small and frequently repeated doses, with a large admixture of air, relieves the muscular spasms when it fails to produce a lasting benefit. By some recent writers it is claimed to be the agent which has cured the most cases. Chloroform frictions are also recommended.

*Colchicum* has been used, but not with very satisfactory results.

\**Conium* is regarded by Dr. HARLEY as the natural antagonist of this disease, but to be effectual large doses of the succus must be given. If the patient cannot swallow, from f.3vj-xij of the succus, warmed to the temperature of the body, should be injected into the bowels, and repeated every two, three or four hours, according to the condition of the muscles.

*Glonoïn*. Nitro-glycerin has been employed, but must be given cautiously.

*Morphia* has been frequently used hypodermically in this disease; see Hypodermic Injections below.

*Nicotia* has been given hypodermically. Internally nicotine, in doses of gtt.ss-iijss in sherry and water, several times a day, has been employed with success. The alkaloid has the effect of relaxing the muscles, stopping the delirium, and producing profuse sweating, which exhales a strong odor of snuff. So powerful a poison must be given with caution.

*Nitrite of Amyl*, by inhalation, has been exhibited with success in traumatic tetanus.

*Nux Vomica*, see *Strychnia*.

*Oleum Terebinthinæ*, internally, or by enema, sometimes exerts a beneficial influence. It may be used as an adjunct to other remedies.

*Opium* has been given in large doses, but is inferior, in this disease, to aconite, belladonna, chloroform, or physostigma. Dr. RUPPNER recommends the hypodermic injection of gtt.xxv-lx, of liquor opii compositus, in the back, near the spinal column.

\**Physostigma* is a remedy of much value; and one of which there is great tolerance in this disease. Dr. FRASER, of Edinburgh, is in favor of subcutaneous injections, especially in severe cases (*Practitioner*, August, 1868), but Dr. EBEN. WATSON, who has had great experience in its use, has failed to obtain, in this way, any very decided effect. He prefers to prescribe the alcoholic extract in solution, as a weak tincture; but should the stomach reject this, he gives a double dose in a starch-water enema (*Practitioner*, April, 1870). He agrees with Dr. FRASER in the necessity of giving it in large and repeated doses, the sole limit being the complete subsidence of the tetanic spasms, or the development of the poisonous effects of the drug to a dangerous degree. The strength of the patient must also be well supported by fluid nourishment, and stimulants. *Physostigma* may fail, however, even when its full physiological effects have been produced (F. 204, 207, 208, 209).

*Potassii Bromidum*, in doses of gr. xx-xl, every two or three hours, has been given in a number of reported cases of idiomatic and traumatic tetanus, with markedly favorable effects.

*Quiniæ Sulphas*, has been used, but is of doubtful power.



*Strychnia*, in doses of gr.  $\frac{1}{12}$ – $\frac{1}{16}$ , every two hours, has been employed with benefit.

*Tabacum*. Enemata have been employed with success in the hands of some practitioners, but have failed entirely in others. Their strength should never exceed, gr. xxx of the leaves in Oss of water, and ammonia, brandy and other stimulants must be given, to prevent too great depression. The topical application of tobacco has been recommended in traumatic tetanus, a strong infusion of cavendish tobacco being applied to the wound and surrounding parts, previously blistered; in idiopathic tetanus, it being applied to a blistered surface over the spine. See, also, *Nicotia*.

*Woorara*, in large doses hypodermically, gr.  $\frac{1}{60}$ – $\frac{1}{30}$ – $\frac{1}{12}$  is successful in the hands of SPENCER WELLS and others. It has not, however, justified the confident hopes that were at first entertained of its powers in tetanus.

*Cathartics* are useful in most cases.

#### EXTERNAL REMEDIES.

*Actual Caution*, applied to the wound, in traumatic tetanus, was proposed by LARREY.

*Baths*. Warm baths, 97°–100° F., of three to four hours' duration, repeated daily, have been advised.

*Blood-letting*. When there exists a disposition to isochronic inflammation, and the patient is plethoric, and the pulse full, venesection at the onset has been advised.

*Cantharis*. Prof. STILLÉ states that in tetanus, "even when of traumatic origin, blistering on either side of the spinous processes and throughout the entire length of the spine, is an important if not an essential element of treatment. It is possible, though not certain, that the endermic use of the salts of morphia on the parts thus denuded adds greatly to the efficacy of the vesication. It were, perhaps, better to introduce the narcotic by inoculation."

*Chloroformum*. Chloroform frictions are said to afford relief.

*Electricity*. Dr. MENDELL, of Berlin, has successfully treated two cases by the local application of a gentle current of electricity to the affected muscles, with the apparent effect of subduing the excessive irritability of the sentient nerves. When a strong current is directed to the cord, powerful contractions result. The positive pole should be directed to the antagonists of the affected muscles.

*Frigus*. *Cold Effusions* have proved of little value in traumatic tetanus, but of great service in the idiopathic form, particularly in warm climates. *Ice in bladders*, steadily applied along the whole length of the spine, has proved efficient in both the traumatic and idiopathic varieties of the disease.

*Hypodermic Injections*. The following remedies have been employed hypodermically in tetanus: *Atropia*, without much success; *Liquor opii compositus*, gtt. xxv–lx, by Dr. RUPPNER, with the effect of securing comparative calm and ease; *Morphia*, gr. j–ij during the day, of the muriate, by DEMARQUAY, the needle being carried deeply into the contracted muscles, and, if possible, to the point of entrance of the nerves; *Nicotia*, gr.  $\frac{1}{60}$ , about one-half of the traumatic cases, according to Prof. BARTHOLOW, treated with it getting well—a better result than from any other remedy excepting physostigma; *\*Physostigma*, gr.  $\frac{1}{3}$  to commence with, which may be considered as one of the most useful remedies yet employed (p. 105); *Woorara*, gr.  $\frac{1}{60}$ – $\frac{1}{30}$ – $\frac{1}{12}$ , with varying results, but short of the expectations based upon its peculiar physiological action.

*Potassa*. Counter-irritation, by caustic potassa, over the spinal column, has repeatedly proved of service in traumatic tetanus.



## TIC DOULOUREUX.

FRANCIS E. ANSTIE, M. D., LONDON.

In the treatment of this terrible kind of facial neuralgia, to which TROUSSEAU gave the name of *epileptiform*, Dr. A. recommends (*Half-Yearly Compendium of Medical Science*, July, 1869) the following plan in the earlier stages of the malady:—

1. *Counter-irritation*, applied, not to the branches of the fifth, but to those of the occipital nerve, at the nape of the neck. A blister in the former situation is often as hurtful as useful; in the latter, it is sometimes strikingly effective in gaining a short respite.

2. *Nutritive Tonics*. The assiduous use of cod-liver oil, or of some fatty substitute for it, should be insisted on from the first, and is of the highest consequence.

3. *Subcutaneous Injection* of morphia, or of atropia, according to circumstances. Commence with the use of one-sixth of a grain of morphia twice daily, increasing this, if necessary, to one-fourth and one-half a grain, and in rare cases to one grain. If this produces, along with the other measures, a notable remission of the pain, it should be cautiously and steadily decreased, as circumstances may admit. In cases where morphia fails, atropia may be tried in doses commencing at one-sixth of a grain. The injection of a less quantity than this would probably be useless in severe tic.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

210. R. Liquoris potassii arsenitis, gtt.v  
 Syrupi rhei aromatici, f.3j. M.  
 For one dose, thrice daily, after meals.

At night apply a *hot salt bag* to the back of the neck, and order the following pill:—

211. R. Extracti belladonnæ, gr. 4  
 Extracti hyoscyami,  
 Extracti colocynthidis compositi,  
 Pulveris zingiberis, āā gr. j. M.

ASHLEY N. DENTON, M. D., SUTHERLAND SPRINGS, TEXAS.

212. R. Olei camphoræ, f.3ij  
 Pulveris opii, ʒj  
 Potassii nitratis, gr. xv.  
 Mix well in a mortar, and apply to a denuded surface. Useful in relieving the intense suffering from facial neuralgia.



Dr. D. also recommends (St. Louis *Medical Reporter*, June 15th, 1867) chloroform, as advised by Dr. TANNER, as one of the most useful palliatives in his hands.

W. MUNRO, M. D., ENGLAND.

Believing that in tic douloureux the blood vessels of the part affected are in a state of constriction, our author has used *calabar bean* in several cases (*Medical and Surgical Reporter*, December 5th, 1874) with exceedingly satisfactory results. He drops into the eye two or three drops of a solution of extract of calabar bean (1 in 40), or applies one of Streatfield's ophthalmic squares to the eye.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

213. R. Extracti hyoseyami,  
Zinci oxidi,                      āā    ʒij.                      M.

Divide into 40 pills. Begin with one pill, morning and evening, and increase to twenty or thirty of them daily. These, known as Meglin's pills, have a good reputation in Germany.

THOMAS HAWKES TANNER, M. D., LONDON.

- |      |    |                      |    |                    |    |
|------|----|----------------------|----|--------------------|----|
| 214. | R. | Extracti belladonnæ, |    |                    |    |
|      |    | Extracti opii,       | āā | 3 <sup>iss</sup>   |    |
|      |    | Glycerinæ,           |    | f. 3 <sup>iv</sup> |    |
|      |    | Extracti papaveris,  |    | 3 <sup>iss.</sup>  | M. |

To be painted over the affected part. A fomentation, flannel, or hot linseed poultice, is to be applied, being separated from the extracts by a sheet of tissue paper.

- |         |                        |        |    |
|---------|------------------------|--------|----|
| 215. R. | Aconitiæ,              | gr.ij  |    |
|         | Alcoholis,             | gtt.vj |    |
|         | Mix thoroughly and add |        |    |
|         | Adipis,                | 3j.    | M. |

A small portion to be cautiously smeared over the track of the painful nerve once or twice a day; but it must not be used where there is the slightest abrasion.

EDWARD WAAKES, M. D., LONDON.

216. R. Potassii bicarbonatis, ʒiiss  
Extracti ergotæ fluidi, f.ʒj  
Infusi ergotæ, f.ʒvj. M.

Two tablespoonfuls every four hours.

B. M. WALKER, M. D., PLYMOUTH, NORTH CAROLINA.

Our author reports (*American Journal of the Medical Sciences*, April, 1874) a case of tic douloureux treated by ice. The patient, a lady aged 60, had been treated in various ways during five years, no remedy securing a longer period of relief than a few weeks. She was directed to use ice upon the part, which was over the fifth



pair of nerves, and to continue the application as long as she could bear it, at the same time holding brandy in the mouth. The pain, for a while, was more intolerable than ever before; then it began to subside, and perfect quiet was obtained. The pain did not return the next day, as was customary, nor was there any subsequent return nor necessity for treatment.

### RÉSUMÉ OF REMEDIES.

- Acidum Arseniosum* is sometimes prescribed by Prof. DA COSTA (F. 210).  
*Aconitum* is employed with benefit in this, as in most other forms of neuralgia.  
*Ammonii Chloridum*, in doses of  $\mathfrak{zss}$ , four times daily, often succeeds. If the pain does not yield after five doses, no benefit need be expected from this remedy.  
*Aqua Ammoniacæ* has been found of benefit in some cases, in doses of  $\mathfrak{mxx}$ -xl in a cupful of thick gruel, at bedtime.  
*Argenti Nitras* has been found, by ROMBERG, of great but not permanent benefit, in doses of gr.j. several times daily.  
 \* *Atropia*, hypodermically, is a valuable remedy, in this, as in other forms of neuralgia.  
*Belladonna* ranks among the first of sedatives and anodynes, in this, as in other neuralgic affections (F. 211, 214).  
*Bebericæ Sulphas* (in doses of gr.x night and morning), has been recommended by Prof. J. Y. SIMPSON and others.  
*Cannabis Indica* is a capricious remedy, but one which ( $\mathfrak{m}xij$ --xx of the tincture) often allays pain after the failure of other sedatives.  
*Chloroformum* is frequently a useful palliative.  
*Caffein*. One grain doses of the citrate every hour, for some time before the expected paroxysms, has been recommended.  
*Ergota* has been found useful, by Dr. E. WAAKES (*British Medical Journal*, August 8, 1868).  
*Ferrum* is of service in anæmic cases.  
*Hyoscyamus*, combined with oxide of zinc, has an excellent reputation in Germany (F. 213).  
 \* *Morphia*, hypodermically injected, is a speedy and powerful remedy (p. 110). The injections should not be made under the skin of the face.  
*Oleum Tigllii* has been employed with benefit internally.  
*Opium* is inferior to morphia injected subcutaneously.  
*Cathartic Enemata* of castor oil, turpentine and assafoetida are valuable aids to treatment when there is an overloaded colon.

### EXTERNAL REMEDIES.

- Aconitia*, in purely chronic cases, is a most valuable application (F. 215).  
 \* *Aconitum*, locally, often subdues the disease, attention being paid, at the same time, to the state of the bowels, and to the general health.  
*Antimonial* counter-irritation occasions so much pain and discomfort that it is rarely resorted to.  
*Aqua Ammoniacæ* has been found, by a number of French physicians, to rapidly cure some obstinate cases, when applied with a camel-hair



brush to the palate and gums, so as to cause a profuse discharge of tears and saliva.

*Belladonna* is frequently employed locally, with benefit (F. 214).

\**Chloroformum* may be applied in liniment or pad.

*Counter-Irritation* at the nape of the neck is recommended by Dr. ANSTIE (p. 110). Dr. DA COSTA sometimes orders a hot salt bath to the back of the neck.

*Delphinia*, applied externally, is stated, by Dr. TURNBULL, to be very efficient. It may be employed in the form of a solution :—

217.	R.	Delphinia,	℥ij	
		Alcoholis,	f.℥xij.	M.

Or, in ointment :—

218.	R.	Delphinia,	gr. xxx	
		Olei olivæ,	f.℥j	
		Adipis,	℥j.	M.

*Frigus*. The local application of ice has been successfully employed (p. 111). *Hydrargyri Iodidum Viridum* is recommended, in ointment, of the strength of forty grains to the ounce of lard.

*Opium* is applied locally with benefit, but is far inferior to morphia, introduced hypodermically.

*Physostigma*. A solution of the extract of calabar bean (1 in 40) applied to the eye, has been used successfully (p. 111).

*Veratria* is of great service, applied in ointment (F. 150, 157).

*Electro-puncture*, employed during the intermission of pain, is often a valuable method of treatment.

*Hypodermic Injections*. Dr. ANSTIE employs injections of morphia or of atropia, according to circumstances (p. 110). Dr. RUPPNER reports a number of cases treated with success by the injection of liquor opii compositus, ℥x. In general, in regard to the use of hypodermic injections, the same is true as in other forms of neuralgia (pp. 95, 104).

*Neurotomy*. Prof. NIEMEYER quotes BRUNS in support of division of the nerve, or excision of part of it, in proper cases. He shows, after a careful examination of the cases where it had been done, that, after excluding those where its want of benefit depended on error of diagnosis or operation, and after excluding the cases where the recurrence of pain was to be regarded as a new attack, not as a relapse, there was a considerable number of cases where the neurotomy caused either a complete and permanent benefit, or at least a temporary one for a few months or years. The operation is indicated when the pain is very limited, when it is probable that its exciting cause is situated at a point beyond which the nerve is accessible to the knife, when other treatment has proved fruitless, and when the pain renders the patient unfit for business. There is also an indication to operate when we cannot hope to divide the nerve between the point of disease and the brain, but when the pain never occurs spontaneously, being always the result of some external irritation acting on the peripheral terminations of the nerve. In such cases the operation may, to some extent, protect the patients from the exciting causes of their attacks of pain. The temporary *compression* of the affected nerve, and the artery supplying it, has also sometimes proved an excellent palliative, and deserves a trial in suitable cases.



## VERTIGO.

PROF. AUSTIN FLINT, M. D., NEW YORK.

The first and most important measure in the treatment of vertigo consists in the removal of the cause or causes at work. All measures, such as blood-letting, counter-irritation and purgation, addressed to cerebral congestion, are hurtful. On the contrary, tonic remedies, nutritious diet, and other hygienic means of invigorating the general health, are useful. The practitioner should bear in mind the importance of assuring the patient positively of the absence of all danger.

C. HANDFIELD JONES, M. D., LONDON.

219. R.	Hydrargyri chloridi corrosivi,	gr. j	
	Glycerinæ,	f. 3j	
	Tincturæ cinchonæ compositæ,	f. 3j	
	Olei menthæ piperitæ,	℥xxv.	M.

A teaspoonful in a wineglassful of water three times a day, in the *vertigo of old persons*, which occurs sometimes paroxysmally, as a single symptom, unassociated with any special state that can account for it. Dr. THOMAS HAWKES TANNER also recommends this treatment for the attacks of temporary dizziness to which the aged are liable.

## RÉSUMÉ OF REMEDIES.

*Ammonii Bromidum* has been found, by Dr. RAMSKILL, of great help, when given in an effervescing form with cascarrilla, in cases of vertigo from overwork in the well-fed, when there is usually restlessness, insomnia, and depression of spirits, with a sense of impending evil.

*Cubeba*, in doses of gr. i, three times a day, at meal times, is recommended by Dr. DEBOUT in vertigo occasioned by excessive mental emotion or intellectual labor, and associated with dyspeptic derangement.

\**Ferri et Strychniæ Citras* is recommended by Dr. RAMSKILL in essential vertigo (i.e., that unaccompanied with any other head symptoms). The patient should be placed on a long course of it, given in an effervescing form, and alternating, month by month, with tincture of larch and small doses of digitalis.

\**Hydrargyri Chloridum Corrosivum* is recommended, in small doses with bark, by Drs. C. HANDFIELD JONES and T. H. TANNER, in the temporary vertigo of old persons (F. 219).

*Potassii Bicarbonas* is very serviceable in dyspeptic vertigo.

\**Potassii Bromidum* is, according to Dr. RUSSELL REYNOLDS, often of service in vertigo, especially in cases which occur paroxysmally, without the co-existence of obvious spasm or organic disease of the brain.

*Tonic remedies* are recommended by Prof. AUSTIN FLINT.

*Valeriana* is very serviceable in that form of vertigo, with cardiac palpitation, which is not an unfrequent accompaniment of the menopause, or of the first establishment of the menses, in which the blood seems to rush into the head and then suddenly back upon the heart.

*Zinci Valerianas*, in doses of gr. i-ij, thrice daily, associated with extract of valerian, is recommended by Dr. DELIOUX in the treatment of nervous vertigo.



## II. DISEASES OF THE RESPIRATORY SYSTEM.

*Aphonia—Asthma—Bronchitis, Acute—Bronchitis, Chronic—  
Catarrh—Coryza—Emphysema—Hæmoptysis—Laryngitis—  
Phthisis Pulmonalis—Pleurisy, Acute—Pleurisy, Chronic—  
Pneumonia, Acute—Pneumonia, Chronic.*

### APHONIA.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

220. R. Ammonii chloridi,  $\overline{3}ss$   
Syrupi pruni virginianæ, f.  $\overline{3}ij$ .

A teaspoonful thrice daily, in intermittent aphonia; together with

221. R. Strychniæ sulphatis, gr.  $\frac{1}{50}$ .  
In granule, thrice daily.

Used in a case of intermittent aphonia in which the voice was lost for an hour at a time several times a week. A catarrhal condition in this woman, a school teacher, led to a weakening of the cords, so that any over exertion brought about temporary inability to generate distinct voice.

The local application of sulphate of zinc to the cords is productive of permanent good in such cases. The following formulæ may be used for inhalation :—

222. R. Zinci sulphatis, gr. j-vj  
Aquæ destillatæ, f.  $\overline{3}j$ . M.

223. R. Ferri chloridi, gr.  $\frac{1}{3}$ -ij  
Aquæ destillatæ, f.  $\overline{3}j$ . M.

As a weak inhalation in hysterical aphonia.

FREDERICK FIEBER, M. D., VIENNA.

224. R. Tincturæ opii, gtt. vj  
Zinci sulphatis, gr. vj  
Aquæ destillatæ, f.  $\overline{3}j$ . M.

For inhalation.

In laryngo-tracheal catarrh, our author reports a case with



almost complete aphonia, in which the voice soon returned under the inhalation of this solution.

In aphonia from paralysis of the vocal cords, local faradization should be employed.

N. GALLOIS, M. D., PARIS.

225. Immerse a piece of thick paper in a solution of nitrate of potassium, and dry it; then cover it over with the compound tincture of benzoin, cut it up into pieces  $3\frac{1}{2}$  by  $1\frac{1}{2}$  inches, and make into cigarettes.

These cigarettes are highly praised in aphonia.

PROF. O. REVEIL, M. D., PARIS.

226. R. Pulveris benzoinii, ℥ss.  
Place a portion on some live coals, and inhale the vapor, by deep inspirations, in cases of aphonia and hoarseness.

L. WALDENBURG, M. D., BERLIN.

227. R. Sodii chloridi, gr. ij  
Aquæ destillatæ, f. 3j. M.

Used with benefit in a case of aphonia in a patient affected with laryngitis and tuberculosis.

## RÉSUMÉ OF REMEDIES.

### CATARRHAL APHONIA.

*Alumen.* BENNATI, formerly physician at l'Opéra Italien, Paris, ordered the following prescription to restore the natural tones of the voice :—

228. R. Alumenis, ℥j  
Decocti hordei, f. 3ijss. M.

To be used as a *gargle*, the strength to be gradually increased. The general health should be, at the same time, carefully looked after, and the exercise of the voice regulated. The internal administration of alum (gr. x a day, in divided doses, gradually increased to gr. xlv) has been also found very beneficial. Alum lozenges are indicated to complete the cure, and alone, in milder cases.

\**Ammonia.* The inhalation of ammoniacal vapor, disengaged from a mixture of a solution of chloride of ammonium and carbonate of potassium, has given excellent results in aphonia in consequence of exposure to cold. The utility of inhalations of chloride of ammonium vapor in these cases has been tested by Dr. BEIGEL in a number of cases (*Practitioner*, Aug., 1868). Dr. DA COSTA sometimes prescribes chloride of ammonium internally (F. 220).

*Benzoinum*, in vapor, is recommended by French physicians (F. 226).

*Chlorinium.* Chlorine inhalations are serviceable in aphonia following an ordinary cold, without organic lesion.



*Iodinium.* Iodine inhalations, and the application of the tincture of iodine to the fore part of the neck, are worthy of trial in cases arising from chronic thickening, or from debility and relaxation.

*Opium* inhalations have been recommended (F. 224).

*Sodii Chloridum* has been used in inhalation (F. 227).

*Strychnæ Sulphas* has been prescribed by Dr. DA COSTA in intermittent aphonia, together with chloride of ammonium internally (F. 221).

*Zinci Sulphas* is of use, either locally applied, in solution, to the cords, or inhaled (F. 222, 224).

*Zingiber.* A ginger gargle, or a piece of the root employed as a masticatory, is often useful in aphonia from relaxation of the parts.

#### HYSTERICAL AND NERVOUS APHONIA.

*Æther.* Some cases have been reported as cured by the inhalation of ether.

*Ferri Chloridum*, diluted, makes a useful inhalation in hysterical aphonia. (F. 223).

*Pyrethrum* has been found useful in nervous aphonia.

#### EXTERNAL REMEDIES.

\**Cantharis.* Dr. RUSSELL REYNOLDS mentions an obstinate case of hysterical aphonia which yielded to a strip of blister round the throat.

\**Electricity*, according to Dr. G. JOHNSON (*Medical Times*, Jan. 15, 1870), is the best application in nervous and hysterical aphonia. Dr. MORRELL MACKENZIE'S "laryngeal galvanizer" should be used. The shock excites spasm and a scream, and the cure is sometimes very rapid.

#### FUNCTIONAL APHONIA.

*Argenti Nitras*, in solution, applied to the larynx, has been found very beneficial in functional aphonia arising from paralysis of the vocal cords.

*Emetics* of ipecacuanha, sulphate of copper, or sulphate of zinc, are beneficial in aphonia arising from an atonic or paralytic state of the larynx, if followed by tonic and stimulant remedies.

*Local Faradization* is of service.

*Inhalations* are of service in almost all the forms of aphonia. Among those recommended are: Ammoniacal vapor (p. 116); vapor of benzoin (F. 226); chloride of iron (F. 223); chloride of sodium (F. 227); vapor of chlorine; vapor of iodine; opium (F. 224); sulphate of zinc (F. 222, 224).

*Counter-irritation.* Many cases of aphonia yield to a local external application, as a blister, a mustard poultice, or camphor liniment, or some other stimulating application.

*Tonic Regimen*, the fundamental basis of which may be summed up in the three words, "air, exercise, and diet," of the most sanitary kind, is generally, according to Prof. AITKEN, sufficient to bring about a cure in aphonia. The *shower bath* has often been of service. It must not be forgotten that this disease can be easily feigned.



## ASTHMA.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

229. R. Spiritus ætheris compositi,  
 Extracti valerianæ fluidi,      āā      f. ̄j  
 Tincturæ lobeliæ,      f. ̄j<sup>ss</sup>  
 Potassii chloratis,      ̄j<sup>iss</sup>  
 Syrupi tolutani,      f. ̄j.      M.

A dessertspoonful in water three times a day.

Direct also the following stimulating liniment:—

230. R. Chloroformi,      f. ̄j<sup>ss</sup>  
 Olei terebinthinæ,      f. ̄j  
 Spiritus rosmarini,      f. ̄j<sup>iss</sup>.      M.

To be rubbed on the chest several times a day.

231. R. Potassii iodidi,      ̄j  
 Morphiæ sulphatis,      gr. ̄j  
 Tincturæ scillæ,  
 Tincturæ lobeliæ,  
 Syrupi,      āā      f. ̄j.      M.

A teaspoonful thrice daily, in asthma with emphysema and chronic bronchitis.

232. R. Zinci valerianatis,      ̄j  
 Extracti belladonnæ,      gr. ̄j.      M.

For 20 pills. One thrice daily, in *nervous* asthma.

In the treatment of the paroxysms of asthma all nauseants have a certain influence in relaxing the bronchial spasms. Lobelia is particularly serviceable because it acts both as a nauseant and expectorant.

233. R. Tincturæ lobeliæ,  
 Tincturæ hyoscyami,  
 Spiritus ætheris compositi,  
 Syrupi tolutani,      āā      f. ̄j.      M.

A teaspoonful in water every half hour during the paroxysm, until some effect is produced on the breathing, and then every hour or two.

Strong coffee is also sometimes of service in averting a paroxysm (Dr. NIEMEYER directs two ounces of mocha to the cup).

The fumes of nitre paper often give relief.

234. Take some ordinary blotting paper, dip it into a concentrated solution of nitrate of potassium, and allow it to dry. When wanted for use, ignite it in an open vessel covered with a newspaper made into a cone, so that the fumes will be inhaled.



In order to prevent the recurrence of the paroxysms, too great care cannot be taken to inquire into the state of all the functions. In perhaps one-half of the cases, asthma is not a disease of the lungs, but a reflected trouble. In cases of stomach origin,

235. R. *Pilulæ hydrargyri*, gr.ij.  
At night, to be followed by one-half an ounce of Rochelle salts in the morning. Afterwards direct arsenic combined with gentian or belladonna; as,

236. R. *Liquoris potassii arsenitis*, f.ʒj.  
*Tincturæ gentianæ compositæ*, f.ʒiij. M.  
A dessertspoonful thrice daily.

M. FAURE, FRANCE.

237. R. *Aquæ ammoniæ*, f.ʒss.  
To be placed in a bowl and the vapor inhaled, taking care, however, to close the nostrils. The inhalation is to be continued for fifteen minutes, and to be repeated four times a day.

N. GALLOIS, M. D., PARIS.

238. R. *Extracti opii*, gr.  $\frac{3}{4}$ -iss  
*Belladonnæ foliæ*, ʒj.  
Dissolve the extract in a small quantity of water, and then moisten the belladonna leaves with this solution; dry them and roll into cigarettes.

TROUSSEAU substitutes for the belladonna leaves, stramonium leaves.

These cigarettes of opiated belladonna are useful in nervous asthmas and dry coughs.

C. HANDFIELD JONES, M. D., LONDON.

The treatment of asthma is eminently that of a neurosis. It consists first in the removal of all causes of irritation, such as catarrhal inflammation of the bronchi, dyspeptic disorder, unwholesome diet and unsuitable climate, etc., and secondly, in the use of various appropriate tonics and sedatives. *Arsenic* is sometimes of much advantage.

239. R. *Liquoris potassii arsenitis*, ℥iv-v.  
For one dose thrice daily, either alone or combined with an ordinary cough mixture.

240. R. *Extracti cannabis indicæ*, gr.v  
For 10 pills.

This drug occasionally proves very useful, one pill immediately checking the spasm.



241. R. *Liquoris opii sedativi* (Battley), ℥x.  
For one subcutaneous injection into the left front of the chest.

242. R. *Atropiæ sulphatis*, gr.  $\frac{1}{2}$   
*Aquæ*, ℥x. M.  
For one hypodermic injection in the vicinity of the left vagus nerve.

## DR. LECLERC, FRANCE.

243. R. *Extracti belladonnæ*, gr. xv  
*Myrrhæ pulveris*,  
*Ipecacuanhæ pulveris*, āā 3ss. M.  
Divide into 36 pills One thrice a day, in nervous asthma. Nitre  
paper to be burned in the chamber of the patient, and stramonium  
leaves to be smoked.

## J. S. MONELL, M. D., NEW YORK.

Our author recommends (New York *Medical Record*, August 15th, 1866), *forced expiration and inspiration, for the relief of spasmodic asthma.*

He directs that all the air be expired that it is possible for the patient to do, and not to inspire until it is found absolutely necessary. Then carry inspiration to its fullest capacity, and retain with great effort for many seconds. This act of forced expiration, waiting, thorough inspiration, and again waiting, should be continued for some fifteen minutes, when it will be found that the spasm is relieved. It requires great exertion on the part of the patient to perform this act. The first attempt at retaining the inspired air during the asthmatic attack will cause the patient to think he cannot continue it, but perseverance will soon delight him with relief from the spasm.

## PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

Among medicaments especially in repute for the prevention of new paroxysms, and for the radical cure of asthma, *quinine* stands first. The shorter and more regular the intervals of the attack, so much the more is to be expected from this drug. It is unsuitable when the pauses between the seizures are very long or irregular in their occurrence. In such cases we must have recourse to other remedies from the list of the so-called nervines.

As a rule, the metallic nervines are to be preferred before tincture of valerian, assafetida, castor or camphor. The following may be used:—

244. R. *Ferri carbonatis*, 3j  
*Syrupi*, q. s. M.  
For 20 pills. One thrice daily.



- |                                 |   |                     |    |
|---------------------------------|---|---------------------|----|
| 245. R.                         | Zinci oxidi,<br>Syrupi,                 | gr.xxv<br>q. s.     | M. |
| For 20 pills. One thrice daily. |   |                     |    |
| 246. R.                         | Argenti nitratis,<br>Confectionis rosæ, | gr.iiij-iv<br>q. s. | M. |
| For 24 pills. One thrice daily. |   |                     |    |

## DR. PRIDHAM, BIDEFORD, DEVONSHIRE, ENGLAND.

Our author has been very successful in the treatment of asthmatic cases by means of a *duly regulated diet and sedatives* during the intervals of the paroxysms (*British Medical Journal*, June 5 to December 29, 1860).

The secretions from the bowels are, first of all, to be corrected by the following pill, at bedtime, succeeded by a saline aperient in the morning :—

- |              |   |                                    |    |
|--------------|---|------------------------------------|----|
| 247. R.      | Pilulæ aloës cum myrrha,<br>Pilulæ hydrargyri,<br>Extracti taraxaci,<br>Extracti stramonii, | gr.iiij<br>gr.j<br>gr.ij<br>gr.ss. | M. |
| For 2 pills. |   |                                    |    |

Or, by giving every alternate night, in the form of a pill,

- |               |   |                |    |
|---------------|---|----------------|----|
| 248. R.       | Pilulæ hydrargyri,<br>Pulveris ipecacuanhæ, | gr.iv<br>gr.j. | M. |
| For one pill. |   |                |    |

And on the following morning,

- |                  |   |                           |    |
|------------------|---|---------------------------|----|
| 249. R.          | Misturæ sennæ compositæ,<br>Magnesii bicarbonatis,<br>Sodii bicarbonatis, | f.℥j<br>gr.x<br>gr.viiij. | M. |
| For one draught. |   |                           |    |

During the day small doses of *compound rhubarb powder*, of which the following is the formula (Br. Pharm.) :—

- |  |  |                   |
|--|--|-------------------|
| 250. R.  | Pulveris rhei radiceis,<br>Magnesiæ,<br>Pulveris zingiberis, | ℥ij<br>℥vj<br>℥j. |
| To be mixed thoroughly and passed through a fine sieve. Dose—20-60 grains. |  |                   |

After having thus attended to the general secretions for about ten days, the strict dietary system is to be commenced :

He restricts his patients at first to two ounces of fresh meat, with as much dry bread for dinner, at one P. M., and the same for sup-



per, at seven; allows a cup of tea with cream, and dry bread, in the morning; and for drink, weak brandy or whisky and water, which is not to be taken till three hours after animal food. Rest is also enjoined for the same period, though air and exercise are recommended. The following sedatives are also to be given:—

251. R. Extracti conii, 3j  
Extracti cannabis indicæ, gr.v. M.

For 20 pills. One to be taken four times a day, at the hours of seven, twelve, five, and ten. Gradually the dose of extract of conium is to be increased to gr.v, and that of Indian hemp to gr.j, five times a day.

HYDE SALTER, M. D., LONDON.

252. R. Potassii nitratis, ʒiv  
Aquæ, Oss. M.

This solution should be used in the making of nitre paper, for which *red blotting paper* should be employed.

*Coffee* relieves about two-thirds of the cases in which it is tried. The relief is very unequal, often merely temporary, sometimes very light, sometimes complete and permanent. The following are valuable hints on its administration: 1. It cannot be given too strong. Unless sufficiently strong to produce its characteristic physiological effects it does no good, but rather harm; moreover, if given very strong, it need not be given in much bulk, and quantity is a disadvantage, rendering less rapid the effect, and oppressively disturbing the stomach. 2. It is best given without sugar and milk—pure *café noir*. 3. It should be given on an empty stomach; if given on a full stomach it often does great harm, by putting a stop to the process of digestion; indeed, so much is this the case, that coffee accompanying a meal, especially late in the day, is so peculiarly apt to induce asthma that it deserves to be classed among its special provocatives. 4. It seems to act better if given hot—very hot.

*Lobelia* is given by Dr. S., in the form of the tincture, in repeated doses, every half hour, increasing the dose  $\mathfrak{m}$ v each time, till either the physiological effects (faintness, sickness) are manifested, with or without relief, or that relief is obtained without such symptoms. In either case, the medicine is to be at once discontinued. Generally no relief takes place until symptoms of lobelia poisoning show themselves. Any amount may be given, short of producing the effects, without any relief at all. The quantity required differs in each case—generally  $\mathfrak{m}$ l–lx suffices; in others f.ʒiss fail to produce an effect. When once the necessary dose has been ascertained in



this way, the patient should start with it on the next occasion, which generally has the desired effect at once.

*Iodide of potassium* entirely fails in a great many cases. Sometimes, however, the most striking results attend its use. It often requires to be continued for some time before it begins to manifest its effects. It should be used in every case in which it has not been tried, because of its occasional great value.

*Quinine* is the best of all tonics in asthma; next to it is *iron*. The two may be combined with a mineral acid and given with good results.

*Stramonium* is, in some cases, the remedy; in the majority of cases, as ordinarily used, it does some good; and in some few it is positively injurious. Its value in any case can only be ascertained by personal experience. When the leaves and stems fail, substituting the seeds may prove effectual. They appear to be more powerful in their action. The inhalation of the smoke, and swallowing the saliva, may be advantageously combined with the ordinary method of smoking. The earlier in a paroxysm it is had recourse to, the more likely will it be to relieve the spasm; over one that has been long established, it has but little power. As the great thing is to give it in time, an asthmatic should keep his pipe already filled, with the means of lighting it by his bedside, so that, on awaking with dyspnœa, he may immediately use it. A good plan is to adopt the habit of smoking a pipe of it the last thing at night, whether a paroxysm is threatened or not. The stramonium seems to leave, for some hours, a state of the nervous system in which the asthma is not likely to come on, and, since the attack is almost always at night, it seems to conduct the patient through the critical time. The *extract* (gr.  $\frac{1}{4}$ , gradually increased to gr. j) sometimes produces excellent effects, or the *tincture* (m<sub>x</sub>-xx every four hours), may be substituted.

*Tobacco* smoking affords, in some cases, remarkable ease. The habit of smoking has rendered powerless, in a large number of cases, what may, without any qualification, be called its most potent remedy. A pipe is preferable to a cigar, and "bird's eye" to the stronger forms of tobacco. For women and children a few whiffs of a mild cigarette are quite sufficient.

*Chloroform* inhalations, short of *anæsthesia*, are often of benefit. The following are the conclusions of Dr. S. in regard to this remedy: 1. It holds a high place among the remedies for asthma,



there being probably no agent that relieves in so large a number of cases. 2. It operates with very various completeness in different cases. 3. Where it does not cure, it is of great value by affording a temporary respite. 4. No amount of asthmatic apnoea or dyspnoea is any bar to its use. 5. If given constantly, however, in large doses, for a long period, a state of things arises which constitutes a bar to its continuance. 6. The sooner it is given in a paroxysm the better, for if the spasm has existed for some time it is apt to recur as soon as the influence of the chloroform passes off. A few drops at the first indication of an attack may act as a preventive.

THOMAS HAWKES TANNER, M. D., LONDON.

- |         |                              |            |    |
|---------|------------------------------|------------|----|
| 253. R. | Potassii iodidi,             | ʒijss-ʒiv  |    |
|         | Spiritus ammoniæ aromatici,  | f.ʒj       |    |
|         | Tincturæ belladonnæ,         | ml-f.ʒijss |    |
|         | Tincturæ cinchonæ compositæ, | f.ʒij      |    |
|         | Aquæ menthæ piperitæ,        | f.ʒj.      | M. |

A dessertspoonful, in water, three times a day.

In some cases of asthma the author has found remarkable benefit from this formula. It requires to be persevered with for some weeks, the patient being watched, lest it impoverish the blood and produce purpura or boils, or even a carbuncle. If there be constipation order

- |         |                        |    |       |
|---------|------------------------|----|-------|
| 254. R. | Pilulæ rhei compositæ, |    |       |
|         | Extracti conii,        | āā | gr.v. |
- For 2 pills. To be taken at bedtime.

PROF. TROUSSEAU, PARIS.

- |         |                        |         |    |
|---------|------------------------|---------|----|
| 255. R. | Potassii iodidi,       | ʒijss   |    |
|         | Spiritus vini gallici, | f.ʒiss  |    |
|         | Decocti senegæ,        | f.ʒiiij |    |
|         | Syrupi papaveris,      | f.ʒj.   | M. |

In essential asthma give a tablespoonful, twice a day, an hour before the meals, in a little sweetened water.

During the attack, the tincture of lobelia may be administered, in doses of from twenty to thirty drops, from half-hour to half-hour. The respiration of chloroform is also useful; also stramonium cigarettes.

DR. WISTINGHAUSEN, GERMANY.

- |         |                              |              |    |
|---------|------------------------------|--------------|----|
| 256. R. | Liquoris potassii arsenitis, | gtt.x-xv--xx |    |
|         | Aquæ destillatæ,             | f.ʒj.        | M. |
- For inhalation, by means of atomizer, once or twice a day.



## RÉSUMÉ OF REMEDIES.

*Acetum*. As a preventive, bathing the chest every morning with vinegar and water has been advised.

*Æther* by inhalation is sometimes resorted to with benefit in asthma.

*Ammonii Carbonas* has proved (in doses of gr.x-xv) more successful than any other remedy, in the hands of Dr. J. HOPE, in cases of asthma arising from, or connected with, *disease of the heart*. In a very obstinate case the following afforded much relief:—

257. R.	<i>Ammonii carbonatis,</i>	gr.viii	
	<i>Antimonii et potassii tartratis,</i>	gr. $\frac{1}{4}$	
	<i>Aquæ anisi,</i>	f. $\frac{1}{3}$ iss.	M.

A draught to be taken every alternate hour.

*Ammoniacum* is of great service in both *spasmodic* and *hysterical* asthma. In the former case it should be combined with tincture of squill and a small portion of hyoscyamus or conium; in the latter, with equal parts of assafetida. Plasters of ammoniacum applied to the chest often prove useful.

*Antimonii et Potassii Tartras*. Counter-irritation to the chest by tartar emetic ointment is occasionally useful.

*Aqua Ammoniacæ* (four parts to one of water), applied to the velum palati has proved of service in simple idiopathic asthma. This application, which may prove dangerous, is only to be made, if at all, with great caution, so as not to touch the back part of the pharynx. The inhalation of the vapor of aquæ ammonia is useful (F. 237).

*Argenti Nitras* is recommended by Dr. NIEMEYER (F. 246) and others.

*Arsenicum* is recommended by Dr. HANDFIELD JONES (F. 239) and others, but is inadmissible in organic disease of the lungs and heart (F. 236, 256).

*Assafetida*, in combination with other antispasmodics and with narcotics, is often very beneficial in spasmodic asthma.

258. R.	<i>Tincturæ assafetidæ,</i>	f. $\frac{3}{4}$ ss	
	<i>Tincturæ opii,</i>	℥xx	
	<i>Spiritus ætheris compositi,</i>	f. $\frac{3}{4}$ ss	
	<i>Aquæ camphoræ,</i>	f. $\frac{3}{4}$ iss.	M.

For one draught.

\**Belladonna* is a valuable remedy in spasmodic asthma, administered in the manner directed by Dr. HYDE SALTER, viz., in one full dose, sufficiently large to produce the full physiological effects of the drug, every night at bedtime. This plan he regards as infinitely superior to the system of divided doses during the day. It is curative as well as prophylactic, for, by preventing the attack for a series of nights in succession, it breaks through the habit. As there is a marked difference in the tolerance of belladonna in individuals, the proper dose may be ascertained by commencing with small doses and gradually increasing them until the requisite full dose is ascertained.

*Atropia* is injected hypodermically with excellent results (F. 242).

*Brominium*, see *Potassii Bromidum*.

*Camphora* is recommended by Dr. COPLAND as one of the most generally beneficial of any of the class of narcotics or antispasmodics. In the *nervous* and *spasmodic* forms of asthma it should be given in large doses (gr. ij-x), and combined with musk, castor, assafetida, etc., or with sedatives.



*Cannabis Indica* is said to occasionally prove very beneficial (F. 240, 251), but in the hands of Dr. HYDE SALTER it has been a complete failure in the few cases in which he employed it.

*Castoreum* combined with ipecacuanha (equal parts of the tincture of castor and the wine of ipecac), is recommended by Dr. GRAVES.

*Chloral* has been employed with benefit.

\**Caffea* is a simple, safe and very efficacious remedy. Asthmatic patients should avoid using it as an ordinary beverage, lest the habit of taking it should impair its efficacy as a medicine. For its administration see Dr. HYDE SALTER's directions (p. 122).

*Chloroformum* by inhalation is an excellent and prompt remedy for spasmodic asthma.

*Cinchona*, see *Quiniæ Sulphas*.

*Conium* is sometimes given (F. 251).

*Datura Tatula* is the new remedy, said to be of great efficacy smoked in cigarettes.

*Digitalis* has been employed, but is inferior in efficacy and safety to other remedies.

*Dracontium* sometimes succeeds (in doses of gr. xxx-l of the powdered root during the paroxysm), in obstinate cases of spasmodic asthma.

*Ferri Carbonas* is recommended by Dr. NIEMEYER (F. 244).

*Galbanum* is occasionally useful, but is inferior to ammoniacum.

*Hyoscyamus* is, according to Dr. HARLEY, the appropriate remedy in *cardiac* and *pulmonary* asthma. It is best administered subcutaneously.

*Iodinium*, see *Potassii Iodidum*.

\**Ipecacuanha*, in full emetic doses (not less than gr. xx), is often effectual in arresting a paroxysm of spasmodic asthma, if given at or near the outset of the attack. Proportionate doses to children may be given with safety and advantage. Small doses of the wine (℥ v) repeated every ten to thirty minutes for two or three hours, unless relief comes much sooner, in which case the dose may be diminished and taken less frequently, is a method of treatment recommended by Dr. C. D. PHILLIPS (*Practitioner*, Nov., 1869), in *nocturnal spasmodic* asthma, when there is no organic disease of the heart or lungs.

\**Lobelia*, although, from want of uniformity in its action, and from failure to fulfill the high expectations at one time entertained of it, it has fallen into comparative disuse, is, in cases which tolerate it, a valuable remedy. Dr. HYDE SALTER reports favorably of the tincture (p. 122). Dr. RINGER, while regarding it as a remedy of great efficacy, considers that it should be given with caution where heart disease exists, as the pulse may become irregular and very weak. It should also be remembered that some persons exhibit great intolerance of its action, poisonous effects following the smallest doses, and that different specimens differ considerably in strength. It is sometimes given by Prof. DA COSTA, combined with hyoscyamus and Hoffman's anodyne (F. 229, 231, 233).

*Moschus*, in doses regulated according to the severity of the attack, is often productive of benefit in *purely spasmodic* or *nervous* asthma. It has also been applied endermically (gr. vj-xv) with advantage.

*Myrrha* is useful in the asthma of old persons, by arresting the exhaustion consequent on profuse expectoration.

*Nitrite of Amyl*. Cases have been reported in which the inhalation of five drops of this liquid has arrested very distressing attacks of spasmodic asthma.



*Opium* is of questionable value in asthma. Dr. HYDE SALTER says, "Prefer any other sedative to opium; and unless there is some special complication that indicates it, never give it at all."

*Oxygen Inhalations* have been tried with reported "wonderful" results in nervous asthma.

*Petroleum* is a stimulant expectorant, of use in asthma unattended with inflammation.

*Potassii Bromidum*, in full doses, at night, has been recommended in spasmodic asthma. In the *spasmodic asthma of childhood*, given in syrup, in doses of gr.vj every two hours, it has proved very successful after the failure of other remedies.

*Potassii Iodidum* is an uncertain remedy, which sometimes, however, proves strikingly successful (F. 253, 255).

*Potassii Nitras*. The inhalation of the fumes of paper impregnated with nitre is often of striking benefit (F. 234, 252). The following formula is given in the *Journal de Pharmacie et de Chemie*:—

259. Take four ounces of white paper, and allow it to macerate in warm water, until reduced to a uniform paste. Then press out the greater portion of water and mix the residue in a mortar with the following powder:—

Potassii nitratis,		3ij
Myrrhæ,		
Olibani,	āā	3ijss
Belladonnæ,		
Stramonii,		
Digitalis,	āā	gr.x.

When a uniform mass has been formed, roll out into sheets a line or so thick, dry and cut into strips. This paper is said to burn less quickly than the ordinary nitre paper, and to be more effective.

*Quinæ Sulphas* is highly recommended by Dr. NIEMEYER and HYDE SALTER (see pp. 120, 123).

*Sanguinaria* has been prescribed with good effects.

*Scilla*. Benefit is sometimes derived from squill, combined with hemlock or henbane. The following formula is often useful:—

260. R.	Tincturæ scillæ,	gtt.xv	
	Extracti hyoscyami,	gr.ijj	
	Acidi nitrici diluti,	mxxx	
	Aquæ,	f.3iss.	M.

For one dose.

*Spiritus Ætheris Compositus*. Hoffmann's anodyne, though favorably spoken of by some writers, has proved entirely useless in the hands of Dr. HYDE SALTER, and in some cases has seemed to increase the spasm (F. 229, 233, 258).

\**Stramonium*, smoked in a pipe, in doses of gr.x to gr.xx, is often of very great service, but not uniformly so. If it produce any ill effects it should be at once discontinued. The extract or the tincture may be given internally (p. 123).



*Sulphur*, in doses of about gr.viii daily, to be given while fasting, and persevered in for a long period, has been recommended by French physicians.

*Tabacum*. The palliative effects of tobacco fumes in nervous asthma are well known (p. 123).

*Veratrum Viride* has been advised in nervous asthma.

*Zinci Oxidum* is strongly recommended by Dr. SYMONDS (*British Medical Journal*, June 13th, 1868), who states that whether for abating the morbid susceptibility of the respiratory nerves, which engenders the spasmodic paroxysms, or for diminishing the liability to catarrhs, he knows nothing to surpass long courses of the oxide of zinc, with or without extract of conium, for the one indication, and quinine for the other. It is also recommended by Dr. NIEMEYER (F. 245).

*Zinci Sulphas* has been employed, with the result of diminishing the frequency and force of the attacks.

*Zinci Valerianas* is sometimes prescribed (F. 232).

*Cathartics* are often of service (F. 235, 247, 248, 249, 254).

\**Cold Bathing*, employed in the intervals of the attacks of spasmodic asthma, is stated to lessen the morbid sensibility to the impression of cold atmospheric changes, and to give tone and vigor to the system. Simply *sponging the body* is preferred by some to immersion; salt (ʒj ad. aquam, Oj) may be added, and a rough towel or flesh brush employed. The best time is immediately after getting out of bed in the morning. The *shower-bath* is preferred by Sir. T. WATSON.

#### EXTERNAL REMEDIES.

*Electricity* has been employed in some cases, but Dr. HYDE SALTER condemns altogether its use.

*Hypodermic Injections* are frequently employed with great advantage. The following are the principal drugs which have been thus administered:—*Atropia* (F. 242); *Hyoscyamus* (Dr. HARLEY says that in cardiac and pulmonary asthma, the injection of gr.  $\frac{1}{48}$  of sulphate of hyoscyamia will often bring immediate relief); *Opium* (F. 241).

*Inhalations* are of great benefit. The following are the principal drugs which have been thus administered:—*Aqua Ammoniac* (F. 237); *Arsenicum* (F. 256); \**Chloroform* (p. 123); *Conium*; *Nitro-muriaticum Acidum Dilutum* (f.ʒj ad. aquam f.ʒiv at 150° F., but should be used with great caution during a paroxysm); *Oxygen* (not to be employed when there is heart disease); \**Potassii Nitras Fumes* (F. 234, 252, 259); \**Stramonium Smoke* (p. 123); *Sulphurous Acid Spray*; \**Tobacco Smoke* (p. 123).

*Forced Inhalation and Expiration* has been recommended (p. 120).

*Issues* at the nape of the neck are sometimes effectual in mitigating the symptoms.

*Local Applications to the Chest* are often of service. For this purpose the following may be employed:—*Chloroform and Turpentine Liniments* (F. 230); *Tincture of Iodine*; *Ointment of Iodide of Potassium*; *Tartar Emetic Ointment*; *Hot Turpentine Stupes* (especially useful in the old and debilitated); *Hot Water Stupes* (flannel wrung out of water as hot as can be borne, applied to the whole chest during the fit, is recommended by Dr. GRAVES).

*Hay Asthma*, see Hay Fever.



## ACUTE BRONCHITIS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

When the symptoms of a "common cold" first express themselves, and even when the trouble has extended to the chest, as indicated by the hoarseness and tendency to cough, the disease may at once be subdued in a healthy person by a full stimulant but not narcotic dose of opium or morphia, *i. e.*,

261. R. Pulveris opii, gr. j  
vel

262. R. *Liquoris morphiae sulphatis*, f.ʒij.  
For one dose, at bedtime.

Or by five grains of carbonate of ammonium; or by ten to twenty grains of chloride of ammonium; or by an alcoholic diaphoretic drink; or, if the appetite is unimpaired, by a full supper, followed by a moderate amount of some alcoholic stimulant.

If such remedies are delayed too long, the object to be aimed at most is to induce a copious perspiration, and a continued action of the skin and kidneys. From the frequent *inhalation of steam* great benefit is derived.

If the disease shows a disposition to pass into the chronic stage, the following may be administered, and will generally facilitate expectoration and relieve the dyspnoea, viz:—

263.	R.	Ammonii carbonatis,	gr. v	
		Tincturæ benzoini compositæ,	f. 3ss	
		Tincturæ cinchonæ compositæ,	f. 3iss.	M.
For one dose.				

JAMES COPLAND, M. D., LONDON.

264. R. Liquoris ammonii acetatis, f. 3j  
 Spiritus ætheris nitrosi, f. 3iij  
 Vini antimonii, f. 3ijss  
 Misturæ amygdalæ, ad. f. 3viii. M.

One or two tablespoonfuls every third or fourth hour, in the treatment of primary or simple bronchitis.

The bowels should be moderately opened by a small dose of calomel or blue pill, with antimonial powder at night, and a gentle aperient in the morning. If the patient be aged, delicate, or vitally depressed, the antimony may be omitted from the prescription, and a portion of the infusion of cinchona, or of the decoction



of senega added. The dose of the antimony may, of course, be increased, if indicated. When the fever is considerable, or the patient complains of soreness or pain in the chest, a mustard poultice may be applied over the sternum, or the following terebinthinate embrocation employed:—

- |      |    |                         |    |                     |    |
|------|----|-------------------------|----|---------------------|----|
| 265. | R. | Linimenti saponis,      |    |                     |    |
|      |    | Linimenti terebinthinæ, | āā | f. 3 <sup>iss</sup> |    |
|      |    | Olei olivæ,             |    | f. 3 <sup>vij</sup> |    |
|      |    | Olei cajuputi,          |    | f. 3j.              | M. |

This embrocation, having been well shaken, should be sprinkled on two or three folds of flannel, or on sponge-piline, and placed either over the thorax or between the shoulders.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

- |      |    |                             |        |           |
|------|----|-----------------------------|--------|-----------|
| 266. | R. | Vini ipecacuanhæ,           | f. 3ij |           |
|      |    | Liquoris potassii citratis, | f. 3iv |           |
|      |    | Tincturæ opii camphoratæ,   |        |           |
|      |    | Syrupi acaciæ,              | āā     | f. 3j. M. |

A tablespoonful thrice daily, in the first stage of ordinary acute bronchitis.

- |         |                            |         |    |
|---------|----------------------------|---------|----|
| 267. R. | Morphiæ acetatis,          | gr. j   |    |
|         | Potassii acetatis,         | ʒiij    |    |
|         | Liquoris ammonii acetatis, | f. ʒiij |    |
|         | Syrupi tolutani,           | f. ʒj.  | M. |

A dessertspoonful every third hour. A useful diaphoretic alkaline mixture.

- |      |    |                             |        |          |
|------|----|-----------------------------|--------|----------|
| 268. | R. | Ammonii carbonatis,         | gr.xvj |          |
|      |    | Spiritus ætheris compositi, | f.℥iss |          |
|      |    | Syrupi tolutani,            |        |          |
|      |    | Aquæ,                       | aa     | f.℥j. M. |

A teaspoonful every two hours; a stimulating expectorant for a child a year old, affected with bronchitis of two weeks' standing.

*Counter-irritation* to be applied to the chest by means of weak mustard plasters (one part of mustard to four of Indian meal). Also, if the child be much debilitated, 15 gtt. of brandy every four hours. When the child is seen frequently, so that the effect may be watched, there is no better treatment than relieving the lung mechanically by emetics. Hoffman's anodyne, in the above recipe, acts as a diaphoretic and quieting agent, which latter influence would not be obtained from sweet spirits of nitre.

PROF. A. P. DUTCHER, M. D., CLEVELAND, OHIO.

If the patient be robust, and the attack very acute, attended with a frequent and hard pulse, hot and dry skin, costive bowels, laborious breathing, and a troublesome, dry cough, our author recom-



mends (Philadelphia *Medical and Surgical Reporter*, August 17th, 1867) the taking of twelve or fifteen ounces of blood from the arm. If bleeding has no influence in curing the disease, the wonderful power it has in mitigating the patient's sufferings places it far beyond every other known therapeutical agent.

After the bleeding, if the skin remains hot and dry, the patient may be treated to the alcoholic fumigating bath and one of the following powders, given every four hours until the bowels are freely moved :—

- |         |                            |           |    |
|---------|----------------------------|-----------|----|
| 269. R. | Podophyllin,               | gr. j     |    |
|         | Hydrargyri chloridi mitis, | ʒj        |    |
|         | Potassii nitratis,         | ʒss       |    |
|         | Pulveris ipecacuanhæ,      | gr. viij. | M. |
- For 4 powders.

If, after the bowels have been freely moved, the skin should remain hot and dry, the patient may again be subjected to the fumigating bath, and a teaspoonful of the following mixture administered every two hours, until free perspiration and expectoration are produced :—

- |         |                           |         |    |
|---------|---------------------------|---------|----|
| 270. R. | Tincturæ veratri viridi,  | f. ʒss  |    |
|         | Syrupi scillæ compositi,  | f. ʒiij |    |
|         | Spiritus ætheris nitrosi, | f. ʒss  |    |
|         | Extracti lobeliæ fluidi,  | f. ʒij  |    |
|         | Tincturæ opii camphoratæ, | f. ʒss. | M. |
- A teaspoonful every two hours.

If this should produce nausea or vomiting after a few doses, it will commonly prove very beneficial. After free expectoration has been produced, it may be given at longer intervals, or superseded by the following :—

- |         |                       |        |    |
|---------|-----------------------|--------|----|
| 271. R. | Tincturæ sanguinariæ, | f. ʒij |    |
|         | Vini ipecacuanhæ,     | f. ʒj  |    |
|         | Morphiæ sulphatis,    | gr. ij |    |
|         | Syrupi,               | f. ʒj. | M. |
- A teaspoonful every six hours.

To relieve cough and produce rest at night, give the patient eight or ten grains of Dover's powder early in the evening.

If the disease still proves obstinate, and if the dyspnœa and cough still continue, the patient complaining of great weight upon the chest, with a deep, burning pain just under the sternum, apply a *blister* immediately over the seat of the difficulty. It will almost invariably relieve all the symptoms, cut the disease short, and secure a safe and speedy convalescence.



After the disease has passed its climax, very little medical treatment is demanded. If the cough should remain troublesome, and the expectoration scanty and tenacious, our author is in the habit of prescribing the following:—

272. R. Ammonii bromidi, aa 3ij  
 Ammonii iodidi, gr.ij  
 Morphiæ sulphatis, f.ʒviii. M.  
 Syrupi phellandrii aquatici compositi,  
 A dessertspoonful every six hours.

In the *treatment of acute bronchitis in the aged*, our author recommends vegetable emetics in small doses, and expectorants, especially those of a stimulating nature, as the most valuable remedies. Senega is the best of the vegetable expectorants, and the decoction the best form.

273. R. Decocti senegæ, f.ʒviii  
 Two fluid ounces to be administered every four or six hours.

If the patient be weak, add ammonii carbonatis, gr.v, and quiniæ sulphatis, gr.ij, to each dose. A small glass of ale three or four times a day is a mild stimulant, expectorant and anodyne, much to be preferred to wine and ardent spirits. In bad cases of acute bronchitis, our author never hesitates to blister; in mild cases he uses turpentine stupe.

After the violence of the disease has passed, tonics and expectorants should be freely used. The following is a useful expectorant:

274. R. Syrupi scillæ,  
 Syrupi senegæ, aa f.ʒss  
 Syrupi ipecacuanhæ, gr.ij  
 Morphiæ sulphatis, f.ʒiss. M.  
 Syrupi,  
 A teaspoonful every six hours.

J. C. GLONER, M. D., BRUSSELS.

275. R. Olei tigllii, gtt.xv  
 Ætheris, f.ʒss. M.  
 Rub on the front and back of the chest, in acute bronchitis.

276. R. Aquæ laurocerasi, f.ʒij  
 Syrupi tolutani, f.ʒiss  
 Spiriti Jamaicensis, f.ʒij  
 Ovi vitelli, ij  
 Aquæ tepidæ, f.ʒvjss. M.

For one draught, to be given at the outset of bronchitis, to provoke perspiration, and quiet the cough.



Repeated sinapisms on the sternal region.

PROF. R. J. GRAVES, M. D., DUBLIN.

277. R. Acidi nitro-muriatici, f.ʒj  
 Spiritus terebinthinæ, f.ʒiij  
 Adipis, ʒj. M.

Mix thoroughly, with an ivory spatula, the acid and lard, and then add the spirits of turpentine.

This liniment, which ought to be prepared only in a small quantity at a time, as it alters easily, is to be employed in frictions on the chest, in acute bronchitis.

278. R. Acidi acetici, f.ʒss  
 Spiritus terebinthinæ, f.ʒiij  
 Aquæ rosæ, f.ʒiss  
 Spiritus limonis, gtt.x  
 Ovi vitelli, q. s. to suspend  
 the turpentine.

To be applied to the chest by means of a sponge.

This liniment reddens the skin, and after several frictions causes an eruption of fine pustules. A useful rubefacient in bronchitis.

DR. HEIM, GERMANY.

279. R. Ipecacuanhæ pulveris, aa gr. iv  
 Digitalis pulveris, gr. iiss  
 Extracti opii, gr. xv  
 Extracti hyoscyami, q. s.  
 Althææ pulveris,

Divide into 20 pills. One every third hour, to calm the cough of acute bronchitis.

Warm drinks to provoke an abundant transpiration.

280. R. Confectionis rosæ aa ʒiss.  
 Mellis, gr. xxiv  
 Tragacanthæ, gr. vj  
 Pulveris ipecacuanhæ, f.ʒiij. M.  
 Syrupi tolutani,

A teaspoonful three or four times a day.

PROF. GEORGE JOHNSON, M. D., LONDON.

Acute bronchitis is an exaggerated catarrh; the two diseases are essentially the same, and they require the same principle of treatment, only modified according to the character of the symptoms (*British Medical Journal*, Oct. 23, 1869).

In the early stage of acute bronchitis, when the mucous membrane is dry and swollen, the hot-air bath or the wet packing may



be employed once or oftener with advantage. Another very useful remedy in this stage is tartar emetic, in doses of one-sixth of a grain, combined with liquor ammonii acetatis :—

281. R. Antimonii et potassii tartratis, gr. j  $\frac{1}{4}$   
 Liquoris ammonii acetatis, f.  $\frac{3}{4}$  ij  
 Syrupi tolutani,  
 Aquæ, aa f.  $\frac{3}{4}$  j. M.

A tablespoonful thrice daily. The inhalation of steam, repeated several times in the course of the day, is often very soothing and beneficial. Venesection is very rarely required.

In the second stage, when free secretion has been established, antimony and acetate of ammonium are to be discontinued. At this period a combination of carbonate of ammonium, with spirit of chloroform, is useful as a stimulating expectorant or antispasmodic.

282. R. Ammonii carbonatis, ℥ iss  
 Spiritus chloroformi, f.  $\frac{3}{4}$  v  
 Syrupi acaciæ, f.  $\frac{3}{4}$  ij  
 Aquam, ad. f.  $\frac{3}{4}$  iv. M.

A dessertspoonful thrice daily.

Brandy or wine in moderate quantities may now also be required to sustain the strength. When in the advanced stage there is a profuse secretion, with copious perspiration, the ammonia mixture may be replaced by the following :—

283. R. Quiniæ sulphatis, gr. xvj  
 Zinci sulphatis, ℥ j  
 Acidi sulphurici aromatici, f.  $\frac{3}{4}$  v  
 Aquæ menthæ piperitæ, f.  $\frac{3}{4}$  iijss. M.

A dessertspoonful thrice daily, in water.

This combination often checks very rapidly the excessive secretion from the bronchial mucous membrane. The *stimulating expectorants* are sometimes useful at this stage of the disease—senega, squill, ammoniac, and the compound tincture of benzoin. If, as sometimes happens, the stimulating expectorants suddenly check secretion, tighten the breath, and increase dyspnœa, their employment must at once be discontinued. When the secretions accumulate and threaten suffocation, the patient being blue, and cold, and drowsy, and the cough nearly or quite ceasing, an emetic of sulphate of zinc is often wonderfully efficacious in clearing the air-passages.



Our author gives an especial warning with regard to *opium*. Never order an opiate for a bronchitic patient who has the slightest blueness of the lips.

THOMAS HAWKES TANNER, M. D., LONDON.

The patient should be confined to bed in a room of the temperature of from 65° to 70° (F.), with the air kept moist. Beef-tea, milk, arrow-root or gruel, tea with milk, and a mucilaginous drink ought to be allowed, such as

284. R. Misturæ acaciæ,  
Misturæ amygdalæ, āā Oss.

To be mixed with half a pint of pure milk and sweetened with sugar-candy or honey. Then add one large tablespoonful of any liquor. Allow the whole to be taken during the day.

Or,

285. Boil a large pinch of isinglass with a tumblerful of milk, half a dozen bruised almonds, and two or three lumps of sugar. To be taken warm once or twice in the day.

If there be indications of debility, white wine whey, made according to the following formula, will prove a good restorative :—

286. To half a pint of boiling milk add one or two wineglassfuls of Sherry or Madeira. Separate the curd by straining through a fine sieve or piece of muslin. Sweeten the whey with refined sugar.

The following is a useful and agreeable demulcent drink :—

287. R. Extracti sarsaparillæ fluidi,  
Syrupi scillæ, āā f.℥iss. M.

A teaspoonful in a teacupful of barley-water, to be frequently taken during the day.

Then, after a brisk purgative, either of the following may be administered :—

288. R. Syrupi scillæ, f.℥vj  
Spiritus ætheris nitrosi,  
Tincturæ hyoscyami, āā f.℥iij  
Infusi rosæ compositi, f.℥iss. M.

A tablespoonful every six hours.

289. R. Potassii nitratis, ℥ij  
Vini antimonii, f.℥j  
Liquoris ammonii acetatis, f.℥ss  
Aquam camphoræ, ad. f.℥iij. M.

A tablespoonful every four hours.



If there be any depression, stimulating expectorants, such as the following, must be ordered :—

- |         |                               |              |    |
|---------|-------------------------------|--------------|----|
| 290. R. | Ammonii carbonatis,           | ʒss          |    |
|         | Spiritus ætheris compositi,   | f.ʒiij       |    |
|         | Tincturæ scillæ,              | f.ʒiss       |    |
|         | Tincturæ opii camphoratæ,     | f.ʒij-iv     |    |
|         | Tincturæ lavendulæ compositæ, | f.ʒvj        |    |
|         | Infusum senegæ,               | ad. f.ʒviij. | N. |

Two tablespoonfuls every four hours.

- |         |                             |             |    |
|---------|-----------------------------|-------------|----|
| 291. R. | Spiritus ammoniæ aromatici, | f.ʒss       |    |
|         | Spiritus chloroformi,       | f.ʒiij      |    |
|         | Tincturæ aconiti,           | f.ʒss       |    |
|         | Tincturæ senegæ,            | f.ʒvj       |    |
|         | Aquam camphoræ,             | ad. f.ʒiij. | M. |

A tablespoonful every six hours.

Gentle *counter-irritation* to the front of the chest, by dry cupping, turpentine stupes or sinapisms, will prove useful. Should the phlegm appear to accumulate in the bronchial tubes the following emetic will readily remove it :—

- |         |                                  |          |    |
|---------|----------------------------------|----------|----|
| 292. R. | Antimonii et potassii tartratis, | gr. j-ij |    |
|         | Vini ipecacuanhæ,                | f.ʒij.   | M. |

For one dose. to be added to a wineglassful of water, and its action aided by the free administration of warm water.

For the treatment of Acute Bronchitis in Children, see the section on Diseases of Children.

### RÉSUMÉ OF REMEDIES.

*Ammonii Acetatis Liquor* makes a useful diaphoretic alkaline vehicle for antimony, morphia, etc., (F. 267, 289).

*Ammonii Carbonas* may be given with benefit, combined with ipecacuanha squills when expectoration is scanty or difficult, or with tincture of lobelia, if much spasm be present. Five grains given at bedtime, when the first symptoms of a common cold express themselves, often at once subdues the disease (F. 263, 268, 282, 290).

*Ammonii Bromidum* has been recommended (F. 274).

\**Antimonii et Potassii Tartras* is of service in small doses (gr.  $\frac{1}{16}$ – $\frac{1}{4}$ ) in the earliest stages of acute bronchitis in young, plethoric subjects, and where much febrile action is present (F. 264, 289). When the phlegm accumulates in the bronchial tubes, an antimonial emetic will readily remove it (F. 292). The nauseating and depressing effects of antimony should not, however, be long kept up in this disease, as they interfere with proper nutrition, which is of much importance in these cases.

*Chloroformum* by inhalation is said to palliate the cough and excitement, and directly favor the resolution of the extravasated fibrin, and prevent the deposit of more. A drachm of chloroform should be inhaled in



the course of fifteen or twenty minutes, and the inhalation repeated from two to twelve times in the twenty-four hours.

*Colchicum* is recommended in acute stages of *gouty bronchitis* by Dr. GREENHOW, who gives the following, with great success :—

293. R.	Potassii iodidi,		
	Ammonii carbonatis,	āā	gr. iv
	Vini colchici,		℥x
	Tincturæ scillæ,		
	Tincturæ hyoscyami,	āā	℥xx
	Aquæ camphoræ,		q. s.

Make a draught, to be taken thrice daily.

\**Ipecacuanha* is a valuable expectorant and diaphoretic, and a useful adjunct to other remedies of the same class (F. 266, 271, 273, 276, 279, 280, 292).

*Linum*. Flaxseed tea is a favorite vehicle for mild expectorant remedies.

*Monarda*. The warm infusion of horsemint makes an excellent diaphoretic.

*Oleum Ricini* seems, more than any other medicine of its class, to mitigate the inflammation and promote resolution by expectoration.

*Opium*, or morphia, given in full dose at the very outset of a common cold, often averts the attack (F. 261, 262, 266, 272, 276, 279, 290). But an opiate should never be given to a bronchitic patient with the slightest blueness of the lips.

*Oxygen*. In the dyspnœa of capillary bronchitis, the inhalation of oxygen affords relief, and has been the means of preserving life.

*Podophyllin* has been used with good results (F. 271).

*Potassii Nitras* is frequently administered (F. 271, 289). Dr. GRAVES speaks highly of the following combination :—

294. R.	Potassii nitratis,	3ij
	Antimonii et potassii tartratis,	gr. j
	Tincturæ opii camphoratae	f. 3ss
	Misturæ amygdalæ,	f. 3xij.

A tablespoonful every hour.

*Senega* in decoction is a valuable remedy in the treatment of acute bronchitis in the aged (F. 275, 276, 290).

*Veratrum Viride* is often of service (F. 270).

*Zinci Sulphas* is useful in the advanced stages, when there is profuse secretion (F. 283).

*Blisters* are hurtful in the earlier stages, but are often of service in the advanced stages of the disease (p. 131).

*Blood-letting* is recommended by Prof. DUTCHER, in very acute attacks, in robust patients (p. 131). The application of a few leeches to the chest, or moderate wet-cupping, is sometimes indicated.

*Counter-Irritants* to the chest are often of service. For this purpose, dry-cupping, \*hot turpentine stupes, or mild sinapisms, may be employed (pp. 130, 136. F. 277, 278). Turpentine embrocations are also serviceable (F. 265).

*Demulcents* are always indicated (F. 284, 285, 286, 287).

*Stimulants* are often useful, and sometimes necessary, as in the *bronchitis of the aged*, attended with profuse secretion, threatened apnœa and a weak pulse. At the very outset of a common cold, a full supper, with a moderate alcoholic stimulant, will frequently abort the attack (p. 129).

*Water*. The vapor of hot water is often of signal benefit (p. 129). Wet packing is also of service in the early stages (p. 134).



## CHRONIC BRONCHITIS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

In chronic cases of bronchitis, especially in patients who have made considerable progress in the journey of life, remedies which tend to invigorate the general system are indicated. Besides the selection of a beneficial climate and the use of nutritious, easily digested food, stimulating embrocations are useful. The following liniment, employed at the Meath Hospital at Dublin, is highly recommended for this purpose :—

295. R.	Spiritus terebinthinæ,	f.℥iij	
	Acidi acetici,	f.℥ss	
	Vitelli ovi,	j	
	Aquæ rosæ,	f.℥ijss	
	Olei limonis,	f.℥j.	M.

To be rubbed, morning and evening, not only over the chest, before and behind, but also along the sides of the neck. It generally reddens the skin and produces small pimples.

Of the fetid gums, ammoniac in particular is a useful remedy. From the following combination (formula of Prof. EASTON, of Glasgow) decided beneficial results are obtained :—

296. R.	Ammoniaci,	℥ij	
	Acidi nitrici diluti,	f.℥ij	
	Aquæ,	f.℥xij.	M.

Two tablespoonfuls in gruel, thrice daily.

It is often advantageous to administer astringent remedies, as

297. R.	Acidi tannici,	℥j-℥j
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For 20 pills. One thrice daily.

Or,

298. R.	Olei cubebæ,	gtt.x.
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For one dose, three or four times a day, on a piece of sugar.

In the protracted bronchitic affections of the aged, diuretics are of great service. The following formulæ are recommended by our author and by Drs. MACLACHLAN and Stokes, as well suited in a variety of cases of *senile chronic catarrh* :—

299. R.	Potassii nitratis,	gr. xxxvj	
	Tincturæ conii.	f.℥ss	
	Spiritus ætheris nitrosi,		
	Oxymellis scillæ,	aa	f.℥vj
	Decocti senegæ,	ad.	f.℥vj.
	A tablespoonful thrice daily.		M.



300. R. Potassii acetatis,  $\overline{3}$ ss  
 Aceti scillæ,  
 Spiritus ætheris nitrosi,  $\overline{aa}$  f.  $\overline{3}$ vj  
 Tincturæ opii camphoratæ, f.  $\overline{3}$ ss  
 Liquoris ammonii acetatis, f.  $\overline{3}$ ijss  
 Syrupi aurantii corticis, f.  $\overline{3}$ vj. M.  
 A tablespoonful thrice daily.

## DR. BEIGEL, LONDON.

301. R. Pulveris alumenis, gr. ij  
 Tincturæ opii,  $\overline{m}$ x  
 Aquæ destillatæ, f.  $\overline{3}$ j. M.  
 For inhalation by means of atomizer, night and morning, in obstinate cases of chronic bronchitis.

The following inhalation also affords relief in severe cases :—

302. R. Acidi tannici, gr. iij  
 Extracti hyoscyami, gr. ij  
 Aquæ destillatæ, f.  $\overline{3}$ j. M.  
 To be inhaled night and morning. On account of the taste, sulphate of iron (gr. iv to f.  $\overline{3}$ j.) may be substituted for the tannic acid.

## J. SOLIS COHEN, M. D., PHILADELPHIA.

303. R. Liquoris iodinii compositi, gtt. x-xl  
 Aquæ destillatæ, f.  $\overline{3}$ j. M.  
 For inhalation by means of atomizer two or three times a day. If there co-exists pain, the narcotics and sedatives may be added to the inhalation, but preferably in minute quantity.

## DR. VAN DER CORPUT.

304. R. Morphiæ muriatis, gr. j  
 Ammoniaci,  $\overline{3}$ ss  
 Extracti scillæ, gr. xv-xxv. M.  
 For 20 pills—take from two to four in the course of the day, in chronic bronchitis and bronchorrhœa.

## PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

305. R. Ammonii chloridi,  $\overline{3}$ ij  
 Misturæ glycyrrhizæ compositæ, f.  $\overline{3}$ ij. M.  
 A dessertspoonful three times a day.

Chloride of ammonium, in order to be effective, should be given in ten-grain doses. In the bronchitis of patients affected with phthisis, it may be combined as follows :—

306. R. Ammonii chloridi,  $\overline{3}$ ss  
 Morphiæ muriatis, gr. j  
 Extracti pruni virginianæ fluidi, f.  $\overline{3}$ ij. M.  
 A teaspoonful three or four times a day.



307. R. Ammonii chloridi, ʒij  
 Potassii chloratis, ʒl  
 Tincturæ hyoscyami, f.ʒss  
 Extracti pruni virginianæ fluidi, f.ʒijss. M.

A dessertspoonful, thrice daily, when there is a tenacious secretion.

Chlorate of potash thins the secretion and promotes expectoration; it is useful in both acute and chronic bronchitis.

308. R. Potassii chloratis, ʒij  
 Tincturæ scillæ, f.ʒss  
 Misturæ glycyrrhizæ compositæ, f.ʒijss. M.

A dessertspoonful three or four times a day, when there are dry râles.

309. R. Vini picis liquidæ, f.ʒij.  
 A dessertspoonful thrice daily, in cases of bronchial catarrh, together with

310. R. Plumbi acetatis, ʒij  
 Extracti glycyrrhizæ, q. s. M.  
 For 20 pills. One three times a day.

311. R. Potassii carbonatis, ʒss  
 Vini ipecacuanhæ, f.ʒij  
 Tincturæ opii camphoratæ, aa  
 Syrupi tolutani, f.ʒiss. M.

A teaspoonful three times a day, as an alkaline expectorant mixture, to thin the secretion.

Or, the following may be used when a tonic is also indicated:—

312. R. Sodii carbonatis, ʒj  
 Ammonii chloridi, ʒij  
 Extracti gentianæ fluidi, f.ʒvj  
 Extracti hyoscyami fluidi, f.ʒij  
 Syrupi tolutani, f.ʒij. M.

A dessertspoonful three times a day.

313. R. Pulveris alumenis, gr.viiij  
 Extracti conii fluidi, gtt vj  
 Aquæ destillatæ, f.ʒj. M.

For atomization. The alum to be gradually increased to gr.xx-f.ʒj.

PROF. A. P. DUTCHER, M. D., CLEVELAND, OHIO.

As *local remedies* the inhalation of the vapor of hops, iodine, chloroform, tar, extract of conium and belladonna are at times very useful (*Philadelphia Medical and Surgical Reporter*, October 12th and 19th, 1867). The *vapor of iodine* should be watched with the greatest attention. If it increases dyspnoea, and produces an unusual feeling of heat and distress in the bronchial region, it should be immediately discontinued, for it will produce congestion



in the smaller bronchia, which may extend to the air cells and ultimately end in pneumonia.

The *constitutional treatment* must vary with the wants of each particular case. *Tonics*, such as iron, gentian and quinine, with minute doses of mercury, are commonly useful to improve the state of the secretions and functions generally. When the expectoration is profuse, with much febrile excitement, the *mineral acids* and *metallic astringents* are useful. When the urine is loaded with the oxalate of lime, and the bronchial trouble appears to depend upon indigestion, from some defect in the functions of primary assimilation, the nitro-muriatic acid, administered according to the following formula, will sometimes produce a wonderful change for the better, in cases that have resisted every other form of medication :—

- |         |                              |       |    |
|---------|------------------------------|-------|----|
| 314. R. | Acidi nitrici,               | f℥j   |    |
|         | Acidi muriatici,             | f℥ij  |    |
|         | Morphiæ sulphatis,           | gr.ij |    |
|         | Tincturæ cinchonæ compositæ, | f℥iv. | M. |
- A teaspoonful thrice daily, before each meal.

In mild cases of chronic bronchitis, the *iodide of potassium* is a most valuable remedy; it seems to restrain low degrees of inflammation affecting the fibrous part of the tubes, and counteracts the process of induration to which they tend. In bad cases of the disease, where there is no tendency to tuberculosis, our author is in the habit of prescribing the iodide of potash and corrosive chloride of mercury, thus :—

- |         |                                |       |    |
|---------|--------------------------------|-------|----|
| 315. R. | Hydrargyri chloridi corrosivi, | gr.ij |    |
|         | Potassii iodidi,               | ℥iij  |    |
|         | Extracti lobeliæ fluidi,       | f℥j   |    |
|         | Syrupi,                        | f℥v.  | M. |
- A teaspoonful three times a day, after each meal.

Where there is a tendency to tuberculosis the mercury should be omitted.

The following is a useful combination, where it can be borne by the stomach, to allay cough and restrain expectoration :—

- |         |                    |        |    |
|---------|--------------------|--------|----|
| 316. R. | Copaibæ,           | f℥ij   |    |
|         | Tincturæ cubebæ,   | f℥j    |    |
|         | Morphiæ sulphatis, | gr. iv |    |
|         | Syrupi,            | f℥j.   | M. |
- A teaspoonful three times a day.

*Ipecacuanha* as an expectorant, in ordinary cases of chronic



bronchitis, may be given in doses of a grain or two of the powder, or twenty to thirty drops of the wine, repeated several times a day, or combined with other agents, according to the following:—

317. R. Vini ipecacuanhæ,  
Syrupi scillæ, āā f.℥j  
Tincturæ digitalis,  
Spiritus ætheris nitrosi, āā f.℥ss  
Tincturæ opii camphoratæ, f.℥ij M.  
A teaspoonful three times a day.

In the chronic bronchitis of aged people, where, from alterations in the structure of the tubes, a cure cannot be expected, the disease may often be palliated and the patient rendered very comfortable by the use of the following combination, which is one of our author's favorite prescriptions:—

318. R. Potassii ferrocyanidi, ℥iv  
Morphiæ sulphatis, gr.v  
Tincturæ colchici radidis,  
Syrupi scillæ, āā f.℥ss  
Aquæ destillatæ, f.℥iv. M.  
A teaspoonful three or four times a day.

When expectoration is viscid, alkalies are useful; and when the vital powers are feeble, Dr. D. is in the habit of prescribing, in connection with other treatment, the following:—

319. R. Ferri pyrophosphatis,  
Quiniæ sulphatis, āā ℥j  
Strychniæ, gr.j  
Extracti hyoscyami, gr.xxx. M.  
For 60 pills. Two to be taken three or four times a day, after each meal.

320. R. Potassii iodidi, ℥iij  
Hydrargyri chloridi corrosivi, gr.ij  
Extracti lobeliæ fluidi, f.℥j  
Syrupi stillingiæ compositi, āā f.℥viijss. M.  
One-half an ounce, three times a day, before each meal; and the chest over the bronchial regions to be painted most thoroughly every night on retiring to rest, with

321. R. Iodinii, ℥j  
Potassii iodidi, ℥ij  
Aquæ, f.℥iv. M.

322. R. Iodinii, gr.xx  
Chloroformi, f.℥j. M.

40 drops to be inhaled every night, before going to bed. After which, to quiet cough and secure good rest at night, take one of the following:—



323. R. Quiniæ sulphatis,  
 Extracti hyoscyami,                      āā      ʒss  
 Morphiæ sulphatis,                      gr.ijj.      M.  
 For 20 pills.

FREDERICK FIEBER, M. D., VIENNA.

324. R. Zinci sulphatis,                      gr.v  
 Aquæ destillatæ,                      f.ʒj.      M.  
 For inhalation.

Of marked benefit in a case of chronic bronchitis, of the variety simulating consumption, of twenty-five years' standing.

E. HEADLAM GREENHOW, M. D., LONDON.

325. R. Vini ipecacuanhæ,  
 Acidi nitro-muriatici diluti,                      āā      ℥x  
 Tincturæ hyoscyami,                      ℥xx  
 Tincturæ gentianæ compositæ,                      f.ʒss  
 Aquam,                      ad. f.ʒij.      M.  
 For one dose. To be taken in water three times a day, in chronic bronchitis.

In almost all cases of chronic bronchitis a time arrives when expectorants, cease to be useful. The expectoration has become of the nature of an habitual flow from the bronchial membrane. Treatment of a tonic character is then required. In these cases Dr. GREENHOW has long been accustomed to prescribe with great advantage the *mineral acids*, especially the nitro-muriatic, in combination with a vegetable bitter, as above. In chronic cases attended by very copious expectoration, he adds to each dose of the above mixture twenty minims of the *tincture of larch*, which has the effect not only of lessening the expectoration, and with it the cough and dyspnœa, but also apparently of restoring the debilitated membrane to a more healthy tone, and of rendering patients less liable to catarrhal attacks at every change of the weather or season.

JOHN FORSYTH MEIGS, M. D., PHILADELPHIA.

326. R. Acidi carbolici fluidi,                      ℥x-xv  
 Aquæ,                      Oss.      M.  
 To be placed in an ordinary inhaling bottle, and used three or four times a day, in bronchial catarrh, offensive secretion from the bronchial tubes, etc.

L. PARISEL, OF PARIS.

327. R. Pulveris cinchonæ flavæ,  
 Sulphuris loti,                      āā      ʒss  
 Syrupi althææ,                      q. s.      M.



This solution should be inhaled by means of an atomizer; useful both in the simple form of chronic bronchitis and in that which usually complicates the advanced stages of phthisis. It diminishes the secretion and thereby lessens the waste of substance and the exhaustion occasioned by repeated and urgent coughing.

PROF. ALFRED STILLÉ, M. D., PHILADELPHIA.

328. R. Acidi carbolicæ fluidi, gtt.xv-xx  
 Tincturæ conii, f.3j-ij  
 Aquæ destillatæ, Oij. M.  
 For inhalation.

THOMAS HAWKES TANNER, M. D., LONDON.

329. R. Syrupi scillæ, f.3vj  
 Acidi nitrici diluti, f.3j  
 Tincturæ hyoscyami, f.3iij  
 Spiritûs chloroformi, f.3vj  
 Infusum cinchonæ flavæ, ad. f.3vj. M.  
 Two tablespoonfuls twice or thrice daily, in chronic catarrh, with debility and restlessness.
330. R. Syrupi scillæ, f.3vj  
 Spiritûs ammoniæ aromatici, f.3iij  
 Morphiæ muriatis, gr.ss  
 Infusum serpentariæ, ad. f.3vj. M.  
 Two tablespoonfuls two or three times a day, in chronic catarrh.
331. R. Pilulæ scillæ compositæ,  
 Extracti conii, āā 3ss. M.  
 For 12 pills. Two to be taken every night at bedtime.

In chronic catarrh when opium is objectionable.

332. R. Tincturæ scillæ, f.3ij  
 Tincturæ stramonii, f.3iiss  
 Infusum dulcamaræ, ad. f.3vj. M.  
 Two tablespoonfuls thrice daily.

In chronic catarrh, especially when the secretions of the skin and kidneys are deficient.

333. R. Olei terebinthinæ, f.3j  
 Aquæ calidæ, f.3v. M.

In chronic bronchitis with excessive secretion.

334. R. Creasoti, mxxx  
 Aquæ bullientis, f.3viij. M.

In chronic catarrh.

JAMES TURNBULL, M. D., LIVERPOOL.

335. R. Ipecacuanhæ, 3ij  
 Olei olivæ, f.3ij  
 Adipis, 3ss. M.

This pomade is to be spread upon the skin once or twice a day, when it is desired to produce an eruption or a rubefacient effect in bronchitis.



Or,

337. R. Emetinæ, gr. xv  
Adipis, ʒss. M.

The emetine is to be dissolved in a small quantity of alcohol, and the solution thus obtained is thoroughly mixed with the lard.

Rubbed on the skin for a few minutes once or twice a day, this ointment produces a copious crop of small pustules, unattended with pain, which remain out for many days and leave no scars. In this last point it has an advantage over tartar emetic ointment, for which Dr. T. proposes it as a substitute.

DR. DE SMET, FRANCE.

338. R. Cinchonæ rubræ pulveris, aa ʒv  
Sulphuris præcipitati, q. s. M.  
Syrupi althææ,

Make an electuary, of which give three or four teaspoonfuls a day, in the chronic bronchitis of old persons, and of those in feeble health predisposed to diarrhœa.

339. R. Antimonii et potassii tartratis, ʒj  
Tincturæ cantharidis, f.ʒij. M.

Rub a small quantity of this liquid on the front of the chest and apply a flannel.

In this manner an eruption is developed which acts efficiently in acute bronchial affections. Or, for the same purpose, the following may be used:—

340. R. Spiritûs camphoræ,  
Tincturæ cantharidis, aa f.ʒiss. M.

To be employed as above.

PROF. WILLIAM STOKES, M. D., DUBLIN.

341. R. Potassii iodidi, ʒij  
Tincturæ opii camphoratae, f.ʒss  
Decocti senegæ, f.ʒiv  
Syrupi tolutani, f.ʒiss. M.

Two teaspoonfuls a day, in chronic bronchitis.

342. R. Tincturæ opii camphoratae, f.ʒss  
Ætheris, .  
Tincturæ tolutanæ, aa f.ʒij. M.

A teaspoonful in a small quantity of a warm drink, to quiet the cough, in bronchitis.

343. R. Tincturæ opii camphoratae,  
Tincturæ scillæ, aa f.ʒiss  
Ammonii carbonatis, gr. xvij  
Decocti senegæ, f.ʒiv  
Syrupi tolutani, f.ʒss. M.

Two or three teaspoonfuls a day in chronic bronchitis, after the inflammatory symptoms have lost a little of their intensity.



344. R. Acidi benzoici,  
 Ammoniaci, āā ʒss  
 Saponis, q. s. M.

Divide into 20 pills. From four to eight in the twenty-four hours, in chronic pulmonary catarrh. Repeated sinapisms to the chest.

SIR THOMAS WATSON, LONDON.

In cases of chronic bronchitis, which are especially remarkable on account of the great abundance of the bronchial secretion, our author has derived great advantage from the administration of the *sulphate of iron* in two or three grain doses, in the *compound infusion of rose*, thrice daily. When there is any fever present, these remedies are apt to augment it; but when the pulse is quiet and the skin cool, they are often of the greatest service.

Our author has also seen the excessive expectoration diminish, and the patient gain strength, under the use of the balsams, the *compound tincture of benzoin*, for example, a form of medicine much employed formerly, and too much neglected at present.

JOHN WILLIAMS, M. D., LONDON.

345. R. Ammoniaci,  
 Ammonii carbonatis, āā gr.xv  
 Ipecacuanhæ, gr.iv  
 Morphiæ muriatis, gr.iss  
 Mucilaginis acaciæ, q. s. M.

Divide into 10 pills, which coat with a solution of balsam of tolu in chloroform. One pill, morning and evening, in chronic bronchitis; especially when the secretion is thick and the expectoration difficult.

### RÉSUMÉ OF REMEDIES.

*Acidum Carbolicum*, by atomized inhalation, is of service when the bronchial secretions acquire a repulsive fetor.

*Allium*. After the febrile stage has passed, syrup of garlic, or the domestic onion syrup, is a very useful expectorant, particularly for children.

*Alumen*. Dr. F. L. ANDREWS, of London, recommends alum in acute as well as in chronic bronchitis, both in children and adults, when the expectoration is ropy. To children of three years he gives one grain in solution every five or six hours, to adults six or eight grains at like intervals.

*Ammoniacum* is often a decidedly useful remedy (F. 296, 304, 345).

*Ammonii Carbonas* is an excellent stimulant expectorant, of benefit in the advanced stages of bronchitis when there is no febrile action present. The following formula may be employed:—

346. R. Ammonii carbonatis, gr.iv  
 Spiritus chloroformi, ℥xx  
 Aquæ camphoræ, f.ʒx. M.

To be taken every three or four hours.

Infusion of senega may often replace with advantage the camphor water in this recipe. It is of especial benefit in the *asthenic bronchitis of old age*.



\**Ammonii Chloridum* is a most valuable remedy in chronic bronchitis, but must be given in ten-grain doses in order to be effective (F. 305, 306, 307, 312). The following is a useful formula:—

347. R.	<i>Ammonii chloridi,</i>	ʒij
	<i>Spiritus ætheris compositi,</i>	f.ʒij
	<i>Extracti glycyrrhizæ,</i>	ʒi
	<i>Decoctum senegæ,</i>	ad. f.ʒvj.

Tablespoonful every two or three hours. Ipecacuanha or squill may be added, if indicated.

*Angelica* is useful in the chronic bronchial catarrh of aged and feeble persons, under circumstances when senega is usually prescribed.

*Antimonii Oxy-iodidum* is of service in subacute bronchitis.

*Arsenicum* is recommended by Dr. THOROWGOOD (*Lancet*, November 13th, 1869) in chronic bronchitis, where copious expectoration and much emaciation are present. At times he finds it to act quite like a specific in improving the breathing. He gives  $\mathfrak{mij}$  of FOWLER'S solution in alkaline infusion of columbo thrice daily.

*Assafœtida* is of service when the cough is spasmodic, and the expectoration difficult, on account of general debility. It is, therefore, often useful in the chronic bronchitis of old persons.

*Balsamum Peruvianum*. The balsams, both of Peru and of Tolu, are useful stimulant expectorants, and vehicles for squill and other remedies of the same kind, in chronic bronchitis (F. 311, 341, 342, 343, 344). The vapor, obtained by placing them upon a piece of hot iron or hot coals, is also of benefit.

*Benzoinum*. The compound tincture of benzoin is a useful stimulant expectorant; the tincture of benzoin may often be employed with benefit, by means of a steam atomizer. Benzoin must be used only in cases not injuriously influenced by stimulation.

*Calcis Phosphas*, in doses of gr.i-ij several times a day, is recommended by Dr. RINGER, as of great value in checking profuse discharges in chronic bronchitis.

*Cetraria* has been highly recommended in chronic bronchitis attended with copious purulent or mucous expectoration.

*Chiretta* has proved useful in chronic bronchitis associated with copious expectoration and exhausted powers of the system.

*Chondrus* has an extended reputation in chronic bronchitis, but is not a very active agent.

*Cimicifuga* is especially useful in the chronic bronchitis and coughs of old age.

*Cinchona*. The acidulated cold infusion of bark is very useful when there is rapid wasting of the system, under the influence of profuse expectoration and night sweats.

*Colchicum* is sometimes prescribed; it is more particularly indicated in gouty bronchitis (F. 318).

*Conium*, in the form of the compound pill (gr.v-x) is frequently useful. Squill increases its efficacy. Vapor coniæ may be inhaled with benefit.

*Copaiba* often restrains and modifies the bronchial secretion in chronic bronchitis attended with profuse expectoration, when there is no fever and not much vascular irritability (F. 316).

*Creasotum* is sometimes given by inhalation and by the stomach, in the bronchorrhœa of old persons.

*Creta Præparata* is recommended by Dr. COPLAND in chronic bronchitis in the



advanced stages, particularly when colliquative sweats and diarrhoea are present. He employs the following mixture, which, even when the bowels are regular, is by no means productive of constipation :—

348. R.	Misturæ cretæ,	f.℥vjss	
	Vini ipecacuanhæ,	f.℥iss	
	Tincturæ opii camphoratæ,	f.℥vj	
	Syrupi tolutani,	f.℥iij.	M.

Tablespoonful three or four times daily.

*Cubeba*, in small and often repeated doses, is of service in the chronic bronchitis of old age, attended with profuse secretion and much debility of constitution (F. 298, 316).

*Cuprum Ammoniatum* is said to be serviceable in severe chronic bronchitis accompanied with spasmodic cough.

*Digitalis*. The tincture is occasionally useful as a sedative adjunct to expectorants.

*Dulcamara* is frequently a useful sedative for the cough.

*Ferri Mistura Aromatica* is highly praised, as calculated to improve the general health and check superabundant secretion, by Dr. GRAVES. He orders

349. R.	Misturæ ferri aromaticæ,	f.℥iss-ijj	
	Aquæ menthæ piperitæ,	f.℥vj.	M.

Tablespoonful thrice daily.

*Ferri Nitratis Liquor* is of service in doses of gtt.x-xv, thrice daily, when tonics and astringents are indicated.

*Ferri Sulphas* is recommended by Sir THOMAS WATSON when there is excessive bronchial secretion (p. 146).

*Ipecacuanha* is a useful expectorant, usually given combined with other remedies (F. 300, 311, 317, 325, 335, 341, 342, 343, 345).

*Larix Europæa* is recommended by Dr. GREENHOW, to check profuse passive expectoration in chronic bronchitis (p. 143).

*Lobelia* is a serviceable sedative, allaying spasm and facilitating expectoration. It is usually given in combination with other remedies.

*Marrubium*. The expressed juice of the fresh plant, taken with milk, has been strongly recommended.

*Myrrha*, when there is no fever or irritability present, is a valuable medicine in long standing chronic bronchitis, particularly after a course of expectorants.

*Nitro-muriaticum Acidum* is of service when tonics are indicated (F. 314, 325).

*Oleum Morrhue* is often of signal service in chronic bronchitis.

*Opium*, though often of much service in allaying bronchitic cough, may prove dangerous if there is much accumulation in the bronchi.

*Pix Liquida* is of some value in bronchial catarrh (F. 309). The following formula was recommended by the late Prof. DUNGLISON :—

350. R.	Picis liquidæ,	f.℥j	
	Aquæ destillatæ,	Oij.	M.

Digest for eight days and decant. Dose, from eight to twelve table-spoonfuls daily, in milk.

*Plumbi Acetas* frequently proves useful when there is profuse mucous secretion (F. 310).



*Potassii Carbonas* is of service in thinning the secretion (F. 311).

*Potassii Chloras* is recommended by Prof. DA COSTA in both acute and chronic bronchitis, to thin the secretion and promote expectoration (F. 307, 308).

\**Potassæ Liquor*, ℥x-xv added to an ordinary expectorant mixture, is often attended with good results when the sputa is scanty, thick and viscid.

*Potassii Ferrocyanidum* is recommended by Prof. DUTCHER (F. 318).

\**Potassii Iodidum* acts beneficially in the advanced stages of chronic bronchitis, in restraining inflammatory action and promoting absorption. (F. 315, 320, 321, 341).

*Sanguinaria* is sometimes employed alone, but is usually associated with other remedies.

*Scilla* is of service after all active inflammation has subsided, in mild cases unattended with purulent expectoration. It is best combined with an alkali and a small quantity of opium (F. 300, 304, 308, 317, 318, 329, 330, 331, 332, 343).

\**Senega* is a highly serviceable remedy, particularly when combined with carbonate of ammonium.

\**Sodii Hypophosphis*, or *potassii hypophosphis*, is useful in very chronic cases, with thick fetid expectoration. Camphor water is a good vehicle.

*Stramonium* is recommended, combined with expectorants, by Dr. HEADLAND, in the form of the tincture (℥x), in the chronic bronchitis of the aged, where there is great dyspnoea, accompanied by a dry state of the tubes.

*Strychnia* or *nux vomica*, in small doses, with iron, is advocated by Dr. THORNGOOD, especially when there is constant dyspnoea with prolonged expiration (*Lancet*, Nov. 13, 1869).

*Sulphur* combined with acid tartrate of potassium is recommended by Dr. GRAVES.

*Tannicum Acidum* is useful when an astringent is indicated.

*Uva Ursi* has proved of benefit when there was purulent expectoration and hectic fever.

*Zinci Sulphas* is recommended by Dr. BARLOW. He employs the following combination for moderating the cough and expectorations:—

351.	R.	Zinci sulphatis,	gr.j	
		Extracti conii,	gr.iv.	M.

One pill thrice daily.

*Zingiber*. The infusion is sometimes useful in the bronchial catarrh of advanced life.

*Alkalies* are useful in chronic bronchitis, when the expectoration is thick and viscid.

*Diuretics* are of benefit in the protracted bronchitic affections of the aged (F. 299, 300).

*Emetics* are recommended in chronic bronchitis, by Dr. GRAVES, when there is no fever, no remarkable dyspnoea nor acceleration of the pulse, but when the secretion is very copious. In such cases; an emetic every night for two or three nights is productive of great advantage, freeing the stomach and lungs from a large amount of mucus, rendering the expectoration easier, clearing the tongue and improving the appetite.

*Inhalations* are frequently employed in the treatment of chronic bronchitis; The following are the principal drugs used:—*Alum* (F. 301, 313). *Balsams of Peru and Tolu*; *Carbolic Acid* (F. 326, 328); *Chlorine*;



*Chloroform*, a few whiffs, may often of signal but only temporary benefit (F. 322); *Conium Vapor*; *Creasote* (F. 334); *Iodine* (F. 303, 322); *Olibanum Fumigations* (the gum rosin placed on burning coals); *Tar Vapor* (generated by heating tar over a spirit lamp, with the addition of a small quantity of potash to neutralize the irritant fumes); *Nitre Paper Fumes* (F. 234, 252, 259); *Sulphurous Acid Spray or Fumigation*; *Tannic Acid* (F. 302); *Turpentine* (F. 333); *Hot Water Vapor*; *Sulphate of Zinc* (F. 324).

*Stimulants* are frequently indicated in the bronchitis of the aged.

#### EXTERNAL REMEDIES.

*Baths.* An alkaline bath sometimes proves useful.

*Counter-irritants.* The following combination of *aqua ammoniæ* applied to the chest is an efficient counter-irritant:—

352. R.	Aquæ ammoniæ,	f. 3ss-j	
	Olei amygdalæ,	f. 3ss	
	Olei rosmarini,	f. 3j	
	Aquæ,	f. 3ij.	M.

*Tartar-emetic* ointment is occasionally employed as an irritant to the chest, but other irritants are generally preferred. *Croton oil* liniment is sometimes very useful. *Turpentine* liniments are highly serviceable. The following combination, supposed to be an imitation of that used by *Dr. JOHN LONG*, is recommended by *Dr. GRAVES*:—

353. R.	Olei terebinthinæ,	f. 3ij	
	Acidi acetici,	f. 3ss	
	Ovi vitelli,	j	
	Olei limonis,	f. 3j	
	Aquæ rosmarini,	f. 3ijss.	M.

To be well rubbed in over the chest, the nape of the neck, the epigastrium, and the course of the cervico-spinal and pneumogastric nerves generally. *Sinapisms* to the chest are sometimes of service.

*Electricity.* A fine primary induction current, of low intensity, passed through the chest from the back and neck, stimulating the sympathetic and spinal nerves, has been found productive of great benefit.

*Nitro-muriatic Acid* lotions sponged over the chest are recommended for checking profuse expectoration, and mitigating the severity of the symptoms.

*Plasters.* A *Burgundy pitch* plaster often proves of service as a protective against atmospheric changes, and as a rubefacient. An *opiate* plaster is sometimes of benefit.

\**Poultices.* Large, light, soft linseed-meal poultices, made to cover the whole of the chest often afford great relief in chronic bronchitis. If it be desirable to stimulate the skin, *Mustard* (1 part to 4) may be added; if there be much pain, *Laudanum* may be sprinkled over the surface.

*Issues* at the nape of the neck sometimes remove or mitigate the symptoms.

See, also, *Chronic Catarrh*, p. 153.



## CATARRH.

HORACE DOBELL, M. D., LONDON.

Catarrh steals, in an insidious way, its marches on its victims. However simple in character and short in duration the first attacks may be, they dispose the mucous membrane to fresh attacks; each attack involves a larger extent of surface than its predecessor; when once the complaint has reached the finer ramifications of the bronchi, it lurks there still—even after the larger tubes have been restored to temporary health—every fresh attack of catarrh in the larger passages supplying the lurking enemy with reinforcements, and enabling it to advance from its fastnesses, and to encroach further and further upon the respiratory tract, until, at last, it needs but a breath of wind upon the lining of the nose or fauces to raise a storm of rebellion throughout the length and breadth of the naso-pulmonary mucous membrane.

If we could nip every catarrh in the bud, what a catalogue of ills we should prevent! And yet this is not a very difficult thing to do, when there is a chance of trying it. But, unfortunately, colds are thought so lightly of by patients, that they seldom try to stop them till they have become severe, have lasted an unusual time, or have produced some complication. Nevertheless, it is our author's opinion, they would do better in this respect if they had more faith in the possibility of stopping colds; if their doctors would impress upon them more the importance of stopping them; and especially if they knew that *colds can be stopped without lying in bed, staying at home, or in any way interfering with business.*

Our author's plan of stopping a cold, while it will not answer if the cold be thoroughly established, is almost infallible if begun directly the first signs of catarrh show themselves in the nose, eyes, throat or chest—in fact, before any considerable amount of secretion has taken place. The plan is as follows:—1. Order.

354. R. Ammonii carbonatis,  
Morphiæ sulphatis,  
Misturæ amygdalæ,

℞j  
gr.  $\frac{1}{8}$   
f.  $\bar{3}$ iv. M.

Two tablespoonfuls every three hours.

2. At night give a tablespoonful of spirit of mindererus in a tumbler of cold water, after the patient has got into bed and been covered up with several extra blankets; cold water to be drank



freely during the night should the patient be thirsty. 3. In the morning, the extra blankets should be removed, so as to allow the skin to cool down before getting up. 4. Let him get up as usual, and take his usual diet, but continue the ammonia and morphia mixture every five hours. 5. At bedtime, the second night, give a compound colocynth pill. No more than twelve doses of the mixture, from first to last, need be taken, as a rule; but should the catarrh seem disposed to come back after leaving off the medicine for a day, another six doses may be taken and another pill. During the treatment, the patient should live a little better than usual.

As everything depends upon the promptitude of the treatment, persons who are subject to catarrh, especially if it inclines to the influenza character, should be provided with a prescription for the medicine, and full instructions how to manage themselves when a cold sets in. Many old catarrhial patients of the author, who have been accustomed for several years to stop their colds in this way, have given their medicine the somewhat unprofessional title of the "Magic Mixture," so often has it saved them from their old enemy.

An addition to this plan is needed in persons whose colds seize at once upon the bronchial mucous membrane. Besides the manner of proceeding just described, they should use the following inhalation:—

355. R.	Extracti conii,	gr. x	
	Tincturæ benzoini,	f. ʒj	
	Spiritus ammoniæ aromatici,	f. ʒss	
	Aquæ (170° F.),	Oj.	M.

Inhale the steam for fifteen minutes at bedtime each night, put a mustard plaster on the front of the chest one night, and between the shoulders the next; and unless the weather is warm, wear a respirator out-doors until all signs of the cold have disappeared.

### RÉSUMÉ OF REMEDIES.

*Acetum.* Bathing the chest every morning with vinegar and water, often diminishes the liability to an attack in persons subject to repeated catarrhs.

*Aconitum* is highly recommended by Dr. RINGER, at the outset of febrile catarrh:—

356. R.	Tincturæ aconiti radicis,	℥viii-xxvj	
	Aquæ,	f. ʒij.	M.

A teaspoonful every ten or fifteen minutes, for two hours, and afterwards repeated every hour. If there be much prostration and the pulse be feeble and weak, the dose should be diminished. So soon as the sensation of "pins and needles" be produced, the aconite, which has then been pushed to its full extent, should be stopped.

*Ammonii Acetatis Liquor* is often of great service.



*Ammonii Carbonas* is a very useful remedy in this affection. For Dr. DOBELL's method of employing it to stop a cold, see p. 151.

*Arsenicum* is of benefit, when the affection is of a local character, and when there is an absence of inflammatory action and febrile disturbance, which states contra-indicate its use.

*Ipecacuanha*. A full dose of Dover's powder (gr.x), taken at bedtime and at the very outset of the attack, often arrests it.

*Lini Infusum* is an excellent demulcent.

\**Opium*. A full opiate at bedtime, followed by a laxative in the morning will, if given at the outset, frequently cut short a common attack of catarrh.

*Scilla* is useful after all active inflammation has subsided, before which time it should never be employed. It unloads the air passages and relieves congestion and dyspnœa. Dr. C. J. B. WILLIAMS states that squill is principally useful in mild cases, unattended with purulent expectoration. He combines it with an alkali and a small portion of opium, to prevent its too rapid passage by the kidneys.

*Spiritus Ætheris Nitrosi* is a popular and efficacious remedy.

*Baths*. A Turkish Bath is often beneficial.

*Inhalations*. Conium inhalations are recommended by Dr. DOBELL (F. 355). Turpentine inhalations are recommended by Dr. BEIGEL. The frequently repeated inhalations of the vapor of hot water, in most instances, afford a remarkable amount of relief.

#### CHRONIC CATARRH.

*Ammoniacum* is a useful remedy in the chronic catarrh of old age.

357. R.	Ammoniaci,	3ij	
	Acidi nitrici diluti,	f.3ij	
	Misturæ acaciæ,	f.3viiij.	M.

Two tablespoonfuls in any bland fluid, every two hours.

*Cannabis Indica* is highly praised by Dr. WARING CURRAN (*Medical Press*, September 9, 1868) as a sedative and expectorant. He orders the following mixture:—

358. R.	Tincturæ cannabis indicæ,	f.3ij	
	Pulveris tragacanthæ compositi,	3j	
	Ætheris chlorici,	f.3iss	
	Aquæ anisi,	f.3vj.	M.

Two tablespoonfuls every second hour.

*Galbanum* is frequently serviceable.

*Sanguinaria*. The regular employment of small doses of the tincture of this root often affords relief in protracted catarrhal affections, assuming the character of incipient phthisis. It should be persevered in for several weeks.

\**Senega* is a very useful remedy in chronic catarrh.

*Fumigations*. Prof. TROUSSEAU highly recommends benzoin fumigations in chronic catarrh. The air of the patient's apartment should be impregnated with the vapor of benzoin, the drug being thrown upon burning coals; or it may be inhaled from a common inhaler, the balsam being placed in barley water.

*Inhalations*. Oxygen inhalations have been advised in catarrh complicated with emphysema. Sulphurous acid fumigation (sprinkle from time to time, on a few red hot cinders, a small portion of sulphur, so as to fill the room not inconveniently with the fumes), or spray, is highly recommended.



## CORYZA.

J. SOLIS COHEN, M. D., PHILADELPHIA.

359. R. Pulveris alumenis, gr.v-xxx  
 Aquæ, f.3j. M.

The nebulized spray to be drawn into the nostrils three or four times a day, to diminish the profuse secretion of coryza and destroy fetor when present.

DR. LOMBARD, GENEVA.

360. R. Pulveris opii,  
 Pulveris benzoini,  
 Sacchari, aa gr.ij. M.

For one powder. To be used in *catarrhal neuralgia complicating coryza*, in the following manner: Heat in the fire a thin plate of iron—a shovel—and throw upon it this powder, holding the head over it, so as to breathe the fumes through both nose and mouth. To be repeated two or three times a day, or oftener. It acts like a charm, frequently giving immediate relief.

M. LUC, SURGEON, FRENCH ARMY.

Our author recommends the inhalation of *iodine vapor* in this affection, effected by placing a bottle of the tincture under the nose, the hand supplying warmth enough to vaporize the iodine. The inhalations, each lasting a minute, are to be repeated every three minutes during an hour.

J. FORSYTH MEIGS, M. D., PHILADELPHIA.

361. R. Unguenti hydrargyri nitratis, 3ss  
 Extracti belladonnæ, gr.x  
 Adipis, 3ss. M.

Useful in chronic coryza of children; to be completely softened by gentle heat, and applied at night on a camel's hair pencil, to the surface of the mucous membrane itself, and not merely to the outside of the hardened scabs. Injections should be employed during the day.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

In the treatment of *acute* nasal catarrh, the production of active diaphoresis is the only procedure worthy of confidence. A Russian bath should be advised where practicable. In most cases, all that is necessary is to direct the patient to confine himself to his room for a few days; to keep the head and feet warm; to swallow some hot drinks frequently during the day; to use linen pocket-handkerchiefs, not silken or cotton, and to change them frequently; and to smear the upper lip with salve, to protect it from the acrid secretion. In the latter stages, a long walk in the open air, or even



an occasional pinch of snuff, hastens the cure. In infants at the breast, the nostrils should be cleared by syringing them with warm water, and they should be fed by the spoon or bottle so long as the obstacle to sucking continues.

In the treatment of *chronic* nasal catarrh, the cachexia, whatever it may be, should be attended to. Local remedies are also of the utmost importance. The most effective is penciling the swollen mucous membrane with the following solution :—

362. R. Argenti nitratis, gr. iv-xxx  
Aquæ destillatæ, f. ʒj. M.

Or cauterizing with the lunar caustic in substance. The following, to be used as a snuff, is in great repute :—

363. R. Hydrargyri chloridi mitis, aa gr. xij  
Hydrargyri oxidi rubri, ʒss. M.  
Sacchari,

For one powder.

When the discharge is offensive, and the above treatment fails, the following may be tried :—

364. R. Iodinii, gr. ij-iv  
Potassii iodidi, gr. iv-viiij  
Aquæ, f. ʒvj. M.

To be used as an injection into the nostrils.

L. WALDENBURG, M. D., BERLIN.

365. R. Ammonii chloridi, gr. iv  
Aquæ destillatæ, f. ʒj. M.

For inhalation by atomizer, in that form of coryza known as dry snuffles. When the mouth is closed and the proper inclination given to the head, the nebulized spray can readily be inspired into the nostrils.

Solutions of common salt may also be employed in the same manner.

For the treatment of the coryza of children, see Section on Diseases of Children.

### RÉSUMÉ OF REMEDIES.

*Acidum Aceticum.* The emanations of acetic acid are useful in arresting the development of coryza.

*Acidum Tannicum.* Prof. TROUSSEAU recommended, in chronic coryza, a snuff of finely pulverized tannin. Prof. STILLÉ also recommends a snuff containing tannic acid and white sugar, reduced to a very fine



powder and forcibly inspired twice a day or oftener, according to the exigencies of the case; or, a glycerite of tannin, applied with a brush, after the parts have been cleaned by the usual douche or otherwise.

*Ammonii Acetatis Liquor* is often very useful in coryza.

*Ammonii Chloridum*, in powder, is a very effective errhine, in coryza.

*Arsenicum* may often be ordered with benefit, in chronic coryza.

*Ætheris Nitrosi Spiritus* is a popular and efficacious remedy, in doses of f.ʒj-iss, in a cupful of a convenient vehicle.

*Camphora*. Snuffing the emanations from a piece of camphor often arrests, it is said, commencing coryza.

*Iodium* and its compounds, aided by local iodine applications, are of service in scrofulous coryza.

\**Ipecacuanha*. A full dose of Dover's powder, taken at bedtime, at the very outset of the attack of coryza, will often arrest it.

\**Opium*. A full opiate at bedtime, followed by a laxative in the morning, will often cut short an attack of coryza, if given at the outset.

*Sanguinaria*. The powdered root, conjoined with cloves and camphor, and employed as snuff, has been recommended.

*Inhalations*. *Alum* will diminish profuse secretion and destroy fetor (F. 359).

*Benzoin* and *Opium* fumes are of service in cases complicated with catarrhal neuralgia (F. 360); *iodine vapor* is useful (p. 154).

#### EXTERNAL REMEDIES.

*Argenti Nitras*. Penciling the swollen mucous membrane with a solution of nitrate of silver is recommended by Prof. NIEMEYER (F. 362).

*Baths*. A Russian Bath, when practicable, is of service.

*Curcuma*. Inhaling the fumes of burning tumeric is a common East Indian remedy. A small piece of burning tumeric should be placed under a small funnel, and the vapor, as it passes through the small aperture, drawn up into the nostrils.

*Electricity*. In the acute stage a constant current from six to eight cups, applied by means of a nasal bath, produces good effects. In chronic coryza nearly all cases, it is asserted, may be cured by galvanic and faradic stimulation.

*Glycerina* may be employed to good effect to soften the plugs of hardened mucus which obstruct the nasal passages, in some forms of chronic coryza.

*Hydrargyri Chloridum Mite*. A mixture of calomel, red oxide of mercury and white sugar, is recommended as a snuff, by Prof. NIEMEYER (F. 363).

*Iodine* injections into the nostrils are efficacious when the discharge is offensive (F. 364).

*Liquor Sodæ Chlorinatæ*. A diluted solution (℥xv-xxx ad. aquæ, f.ʒj), is useful as an injection, when the discharge is fetid. The strength of the solution should never be such as to cause pain.

*Snuffs* of chloride of ammonium, camphor, sanguinaria and calomel have all been employed.

*Zinci Oxidum*. The ointment or glycerine introduced into the nasal cavity, by a camel-hair brush, night and morning, is highly serviceable. The patient should be subjected at the same time to a course of iodine, quinine or iron, and the bowels kept soluble.



## EMPHYSEMA.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

Little can be done, apart from the treatment of the bronchial congestion. If bronchial spasm prevail, the following may give relief:—

368. R. Spiritus ætheris compositi, f.℥iv-viij  
 Aquæ camphoræ, f.℥iv. M.  
 A tablespoonful thrice daily.

THOMAS KING CHAMBERS, M. D., LONDON.

369. R. Tincturæ ferri chloridi, f.℥ijss  
 Tincturæ lobeliæ ætherææ, f.℥ij  
 Aquæ camphoræ, f.℥iv. M.  
 A tablespoonful, in water, thrice daily.

The object of the iron is to try and restore its full vital powers to the creative arterial blood, so that it may renew the pulmonary membrane, that it may form healthy elastic tissue, instead of the imperfectly elastic degenerated tissue. The lobelia is ordered as a substitute for a more powerful medicinal agent, *tobacco*. Nothing calms the distressing asthma so well as a few whiffs of strong Virginia. Like tobacco, lobelia is a very variable article; there seems to be as much difference between one specimen and another, as between the mildest cigarette and strongest shag. The strongest sort should be used, paying for it the best price at the best shop, so that it may be given in moderate and graduated doses.

MEREDITH CLYMER, M. D., NEW YORK.

For the relief of the asthmatic fits of emphysema, nothing is so sure as a full dose of opium with sulphuric or chloric ether.

370. R. Tincturæ opii, f.℥j.  
 Ætheris, f.℥ij. M.  
 Sixty drops every twenty minutes.

To each dose may be added

Tincturæ lobeliæ ætherææ, gtt.xx.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

371. R. Potassii chloratis, ℥iss  
 Tincturæ belladonnæ, f.℥iss  
 Extracti pruni virginianæ fluidi, āā f.℥ij. M.  
 Tincturæ cinchonæ compositæ, āā

A dessertspoonful four times a day, in emphysema with chronic bronchitis and loss of appetite. Also, dry cups applied to the chest morning and evening.



In the treatment of emphysema, strychnia and nux vomica are of no benefit. *Chlorate of potassium* in large doses is of service, so also is the *iodide of potassium*. Care should be taken to prevent the emphysematous patient from having attacks of bronchitis, which aggravate the affection.

In the bronchial complications of emphysema, the following formulæ will be found useful :—

372. R. Tincturæ lobeliæ, f.℥j  
 Syrupi scillæ,  
 Syrupi tolutani, āā f.℥ss  
 Misturæ glycyrrhizæ compositæ, f.℥iv. M.  
 A dessertspoonful every three hours ; with counter-irritation to the chest, with the following :—

373. R. Acidi acetici,  
 Olei terebinthinæ,  
 Linimenti saponis, āā f.℥ij. M.  
 To be rubbed on night and morning.

374. R. Potassii iodidi, ℥ij  
 Syrupi ipecacuanhæ,  
 Tincturæ scillæ, āā f.℥ss  
 Syrupi, f.℥ij. M.  
 A tablespoonful thrice daily.

Together with counter-irritation to the chest.

375. R. Chloroformi, f.℥ss  
 Linimenti ammoniæ,  
 Linimenti saponis, āā f.℥iss. M.  
 To be rubbed on morning and evening, and to be placed on flannel, and allowed to remain against the skin for fifteen minutes.

376. R. Potassii iodidi, ℥ij  
 Extracti senegæ fluidi, f.℥j  
 Syrupi pruni virginianæ, f.℥ij. M.  
 A teaspoonful thrice daily.

377. R. Tincturæ lobeliæ, f.℥ss  
 Extracti valerianæ fluidi, f.℥j  
 Spiritus ætheris compositi, f.℥j  
 Potassii chloratis, ℥iv  
 Syrupi tolutani, f.℥j  
 Aquæ, f.℥ss. M.  
 A dessertspoonful, in water, four times a day or oftener if the oppression be great.

Also the following :—

378. R. Chloroformi, f.℥ss  
 Olei terebinthinæ, f.℥j  
 Spiritus rosmarini, f.℥iss. M.  
 To be rubbed on morning and evening.



379. R. Atropiæ sulphatis,  
In granules, thrice daily.

gr.  $\frac{1}{60}$ .

The treatment in cases of emphysema should be a double one, to modify the bronchial trouble which keeps up the affection, and to alleviate the difficulty of breathing, which may at times rise into paroxysms of attacks of asthma. In point of radical treatment, there are no means which will cause the distended air vessels to resume their natural size. As a matter of absolute experience our author has thought that he has seen, in cases of pure emphysema, not associated with bronchial symptoms, a long course of *iodide of potassium* (three to five grains, thrice daily, for several months), favorably influence the disease, the respiratory murmur becoming fuller and freer, and the prominence of the chest walls less visible. Good results are also obtained from persistent *counter-irritation*. Small flying blisters at various portions of the chest are serviceable. A number of cases are reported in which the constant employment of the continuous *galvanic current* has led to a diminution in the size of the chest.

E. HEADLAM GREENHOW, M. D., LONDON.

380. R.	Potassii iodidi,	gr. xxxvj	
	Ammonii carbonatis,	ʒj	
	Tincturæ scillæ,		
	Tincturæ hyoscyami,	aa	f. ʒss
	Aquæ camphoræ,		f. ʒv. M.

A tablespoonful thrice daily. Also, direct the patient to smoke a stramonium cigarette so soon as he feels the commencement of an asthmatic attack.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

The symptomatic indications in emphysema (our author considers we are totally unable to fulfill the indications of the disease itself, the nutritive alterations upon which it depends being irreparable), are first, the proper treatment of the bronchial catarrh, which almost always accompanies this affection, and greatly adds to the distress of the patient. Habitual wearing of flannel next the skin, stimulants to the chest, warm baths of water or vapor, and the alkaline muriatic mineral springs (especially the thermal springs of Ems), are often of signal benefit.

The next symptomatic indication is to moderate the habitual shortness of breath and the attacks of severe dyspnoea. Sending the patient during the summer to the pine wood region, and particularly to places where there is a heavy fall of dew, will allay the



persistent oppression of the chest. The inhalation of compressed air, for the same reason, is an excellent palliative. To avert the asthmatic attacks, a strict diet, the avoidance of food likely to induce flatulence, light suppers and the keeping of the bowels open, are required.

During the attacks of emphysematous asthma, the narcotics should be used with caution, unless called for by bronchial spasm. The more suitable remedies (beside the emetics, which are very appropriate), are the stimulants, camphor, musk, benzine, and

381. R. Vini portensis, f. ʒj-iss.  
Every three hours.

When these fail, use

382. R. Olei terebinthinæ, f. ʒj-iv  
Aquæ menthæ piperitæ, f. ʒiv  
Sacchari,  
Pulveris acaciæ, aa ʒj. M.  
A tablespoonful every three hours.

For the dropsy complicating the affection, vigorous diaphoresis will give excellent results whenever it depends upon a capillary bronchitis. Later in the disease, when it arises from failure of the heart to compensate for the circulatory derangement of the lungs, it may be relieved for a time, by

383. R. Pulveris digitalis, ʒss-j  
Aquæ, f. ʒvj. M.  
For an infusion. A tablespoonful thrice daily.

Where digitalis fails, squills may be employed.

384. R. Aceti scillæ, f. ʒj  
Aquæ destillatæ, f. ʒvj  
Potassii carbonas, ad. saturationem. M.  
A tablespoonful every two hours.

THOMAS HAWKES TANNER, M. D., LONDON.

385. R. Spiritûs ætheris compositi, f. ʒiss  
Spiritûs ammoniæ aromatici, f. ʒij  
Tincturæ opii camphoratæ, f. ʒiss  
Aquæ camphoræ, q. s. ad. f. ʒiv. M.  
Two tablespoonfuls every half hour until the spasm is relieved.

386. R. Sambulii radicis, ʒss  
Spiritûs ætheris compositi, f. ʒiv. M.  
Macerate in a stoppered bottle for seven days, and then filter. Dose,  
℥xx-xxx



387. R. *Ammoniaci pulveris*, gr.xv  
*Ipecacuanhæ pulveris*, gr.ijj  
*Morphiæ acetatis*, gr.iss  
*Ammonii carbonatis*, gr.xv  
*Mucilaginis acaciæ*, q. s. M.  
 Divide into 20 pills. Two to six a day in emphysema. Ipecacuanha troches to facilitate the expectoration, revulsives on the chest.

For the most part, all that can be done is to give relief by an invigorating diet, rest, warm clothing, attention to the digestive organs, and by the occasional use of tonics and antispasmodics. Amongst the former, *quinine* and *iron* are the most useful. *Strychnia* has failed to be of any service. *Cod-liver oil* ought also to be administered. Amongst the latter remedies, ammonia, ether, hydrocyanic acid, sumbul, etc., are the most promising. Occasionally the vapor of chloroform is of great temporary service. A warm climate is often very beneficial to sufferers from this affection, the dyspnoea being always most urgent in cold weather.

### RÉSUMÉ OF REMEDIES.

- Ammoniacum* has been recommended (F. 387).  
*Ammonii Carbonas* is often employed in combination with other agents (F. 380, 387).  
*Atropia* and *Belladonna* are useful (F. 371, 379).  
*Digitalis* is of benefit in the dropsy complicating the affection (F. 383).  
*Ferrum*. Iron is highly recommended by Dr. CHAMBERS (F. 369).  
*Hyoscyamus* is employed by Dr. GREENHOW (F. 380).  
*Ipecacuanha* troches facilitate the expectoration.  
*Lobelia*, when a good article can be procured, relieves the asthmatic breathing (F. 369, 370, 372).  
*Oleum Terebinthine* is advised by Prof. NIEMEYER, during the attacks of emphysematous asthma (F. 382).  
*Opium*, in full doses, affords relief to the asthmatic fits of emphysema. It may be combined with advantage with ether (F. 370).  
*Potassii Chloras*, in large doses, is of service (F. 371, 377).  
*Potassii Iodidum* is often useful (F. 374, 376, 380).  
*Scilla* is of benefit in the bronchial complications of emphysema (F. 372, 374, 380, 384).  
*Senega* is useful in the same class of cases as squills (F. 376).  
*Spiritus Ætheris Compositus* gives relief when bronchial spasm is present (F. 368, 377, 385).  
*Strychnia* and *Nux Vomica* are, according to Prof. DA COSTA, of no benefit in this disease.  
*Tabacum*. Nothing, according to Dr. CHAMBERS, calms the distressing asthma so well as a few whiffs of strong Virginia.  
*Stimulants* are recommended by Prof. NIEMEYER, during the attacks of emphysematous asthma (p. 160).

### EXTERNAL REMEDIES.

*Counter-irritants* to the chest are often useful (F. 373, 375, 378).



## HÆMOPTYSIS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

388. R. Potassii bitartratis, ℥j  
 Pulveris opii, gr.ij-iv. M.

For 8 powders. One every four or six hours.

389. R. Plumbi acetatis, ℥j-3j  
 Pulveris opii, gr.x. M.

For 20 pills. One every four or six hours.

When hæmoptysis is connected with amenorrhœa, preparations of iron often succeed when the above remedies fail. Thus :—

390. R. Ferri sulphatis, ℥ij  
 Magnesii sulphatis, ℥ijss. M.  
 For 20 powders. One thrice daily.

This will often restore the menstrual secretion and cure the hæmoptysis. Indeed, it is in this form of amenorrhœa that iron is most successful.

391. R. Spiritus terebinthinæ, f.3ss.  
 For one dose, if the bleeding is attended with vascular excitement.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

392. R. Acidi gallici, gr.xx.  
 For one powder. In acute hæmoptysis. To be repeated every ten minutes until hemorrhage ceases.

393. R. Cupri sulphatis, gr.½  
 Ferri sulphatis, gr.ij  
 Extracti hyoscyami, gr.j. M.  
 For one pill, thrice daily.

In persistent slight pulmonary hemorrhage. Sulphate of copper in such cases seems to control the circulation within the lungs, and to arrest a tendency to bleeding. This action is not due to its nauseating effect, for, in this dose, it does not nauseate. The administration of cod-liver oil should be postponed until the hæmoptysis is gotten rid of.

394. R. Ferri chloridi, gr.ij-x  
 Aquæ destillatæ, f.3j. M.  
 For inhalation by atomizer.

395. R. Liquoris ferri subsulphatis, m.x-xl  
 Aquæ destillatæ, f.3j. M.  
 For inhalation by atomizer.



396. R. Acidi tannici, gr. x-xx  
 Aquæ destillatæ, f. ʒj. M.  
 For inhalation by atomizer.

397. R. Pulveris alumenis, gr. xxx  
 Aquæ destillatæ, f. ʒj. M.  
 For inhalation by atomizer.

## HORACE DOBELL, M. D., LONDON.

398. R. Extracti ergotæ fluidi, f. ʒij  
 Tincturæ digitalis, f. ʒij  
 Acidi gallici, ʒj  
 Magnesii sulphatis, ʒv  
 Acidi sulphurici diluti, f. ʒj  
 Infusi rosæ compositi, f. ʒvj. M.

Two tablespoonfuls every three hours until the hemorrhage is arrested.

In spite of the fashionable outcry against complicated prescriptions, Dr. DOBELL recommends the above as the most efficacious and the most rational combination of remedies for a case of profuse tubercular pulmonary hemorrhage. In any given case, either of the ingredients may be omitted, if the symptoms indicate that it is not required, or that it has already done its duty. The object of the ergot is to contract the vessels; of the digitalis, to steady the heart; of the gallic acid, to clot the blood; of the epsom salts, to relieve the congestion; and of the dilute sulphuric acid, to assist the rest.

## DR. GUÉNEAU DE MUSSY, FRANCE.

399. R. Extracti kramerizæ pulveris, ʒj  
 Ergotæ pulveris, ʒij  
 Digitalis pulveris, gr. viij  
 Extracti hyoseyami, gr. iv. M.

Divide into 20 pills. From five to six a day, in the spitting of blood so frequent in pulmonary consumption. Absolute rest; ice by the mouth; sinapisms to the upper and lower limbs successively.

400. R. Acidi sulphurici diluti, f. ʒj  
 Aquæ menthæ piperitæ, f. ʒvj  
 Syrupi rubi, f. ʒj. M.

A tablespoonful to be given every hour, in hæmoptysis or passive hemorrhages.

401. R. Extracti kramerizæ, gr. xv-ʒj  
 Aluminii et potassii sulphatis, gr. iss  
 Infusi rosæ compositi, f. ʒiv  
 Syrupi acidi citrici, f. ʒj. M.

A tablespoonful every half hour, in hæmoptysis. Energetic counter-irritation to the skin.



402. R. Ergotæ pulveris, Div  
 Acidi tannici, Div. M.  
 Divide into 10 powders. One morning and evening, in hæmoptysis.  
 If there exists a disease of the heart at the same time, give digitalis  
 and apply counter-irritation to the lower limbs.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

403. R. Copaibæ,  
 Syrupi,  
 Aquæ menthæ piperitæ,  
 Alcoholis, āā f. 3j  
 Spiritus ætheris nitrosi, f. 3ss. M.  
 A dessertspoonful every two to four hours.

A formula much in use in very obstinate hæmoptysis.

404. R. Aluminii et potassii sulphatis, 3j  
 Morphiæ muriatis, gr. 4  
 Sacchari, 3j. M.  
 Divide into 12 powders. One every hour, in hæmoptysis. Cold com-  
 presses to the chest, absolute rest and silence.

In the first place, the physician should seek to calm the spirits of the patient, which are always much excited; and, inasmuch as the attacks are almost always repeated several times, it is well to save him from further agitation, by straightway informing him that there is more blood to come, while, at the same time, we should absolutely deny the possibility of his bleeding to death. Indeed, we are certainly warranted here in deceiving the patient, by affecting to make light of the affair, and even to represent the hemorrhage as a salutary process. With a little tact the physician may leave his patient in a state of comfort and peace of mind—a success of no slight importance. The chamber must be kept cool, all hot drinks forbidden, and all food eaten cold. Conversation should be interdicted, and the patient urged to resist stoutly the provocation to cough. Coughing in hæmoptysis is quite as hurtful as is snuffing and wiping the nose in epistaxis.

PROF. WALTER HAYLE WALSHE, M. D., LONDON.

The treatment resolves itself into (a) means for removing the conditions causing the flow, and (b) into means for stopping it, in spite of the continuance of these conditions.

(a.) To fulfill the first indication: *bleeding from the arm* is useful when there is active congestion, febrile excitement, and strong cardiac action; *ligature of the limbs*, to prevent the free return of the blood through the veins, is a timely adjuvant, occasionally; *free circulation of cool air*, light bed clothes; a hard bed,



quietude and silence, are essential aids; mouthfuls of ice, and the cautious application of ice-bags to the spine, or over the heart, will sometimes instantaneously arrest the flow, heat being at the same time applied to the extremities; *digitalis* is valuable in cases of irritable heart and moderate hæmoptysis; refrigerants, such as *nitrate of potassium*, sulphuric and other acids, are useful adjuvants.

(b.) To fulfill the second indication: *acetate of lead*, in doses of two to four grains, with dilute acetic acid and laudanum, every half hour, hour, or two hours; *alum*; *ergot*; *matico*; and *gallic acid*. Dr. W's experience leads him to place greater trust in gallic acid than in any other agent of the class, in doses of 20 to 30 grains, every half hour at first. Drachm doses of kitchen salt, either in powder or dissolved in water, sometimes, even when they produce emesis, promptly arrest the hemorrhage. *Hypodermic injections of ergotine* are deserving of trial.

### RÉSUMÉ OF REMEDIES.

*Aceticum Acidum Dilutum* is employed both externally and internally, but is a remedy of minor importance.

*Alumen* is serviceable in purely atonic hæmoptysis. It may be given in solution, by inhalation (F. 397), or be allowed to dissolve slowly in the mouth, in substance or in lozenge. In moderate but persistent tubercular hæmoptysis Dr. SYMONDS recommends (*British Medical Journal*, June 13th, 1868) the following:—

405. R.	<i>Alumenis,</i>	℥ij	
	<i>Acidi sulphurici diluti,</i>	f.℥ijss-iv	
	<i>Magnesii sulphatis,</i>	℥iv	
	<i>Aquæ,</i>	f.℥iv.	M.

A tablespoonful in water, every three hours, or oftener, as required

*Ammonii Chloridum* is recommended by Dr. COPLAND, in combination with muriatic acid, in passive cases of hæmoptysis, when the vital powers are depressed. The following is his formula:—

406. R.	<i>Ammonii chloridi,</i>	℥iss	
	<i>Acidi muriatici,</i>	f.℥ss	
	<i>Decocti hordei compositi,</i>	℥j.	M.

A small wineglassful every two or three hours.

*Argenti Oxidum*, in doses of gr.ss-j, thrice daily, has been recommended, in atonic hæmoptysis.

*Copaiba* is much employed by Prof. NIEMEYER (F. 403).

*Creasotum* fails to give satisfactory results.

*Cupri Sulphas* is highly recommended, by Prof. DA COSTA, in cases of persistent slight hemorrhage (F. 393).

\**Digitalis* is advised by Dr. WALSHE when there is irritable heart and moderate hæmoptysis. By some it is regarded as the best remedy for hemorrhage from cavities in the advanced stages of phthisis (F. 398, 399).



*Ergota* is strongly recommended by Dr. DOBELL, who, however, usually associates it with other remedies (F. 398, 399, 402).

*Ferrum* is particularly of service in hæmoptysis connected with amenorrhœa. The preparations most employed are the tincture of the chloride, the solution of the nitrate (in large doses,  $\text{m}_{\text{xxx}}\text{--lx}$ ), and the sulphate (F. 390, 393).

**\*\**Gallicum Acidum*** is highly recommended by Prof. DA COSTA, WALSHE, and others, as one of the best remedies in hæmoptysis, but it must be given in large doses (F. 392, 398).

*Hydrocyanicum Acidum* seems to possess some power in controlling hæmoptysis when the system is irritable and spasmodic symptoms are present.

**\**Ipecacuanha*** is recommended by Prof. GRAVES and other practitioners, as a remedy of considerable value. From one to two grains are given every fifteen or thirty minutes until nausea is felt, when the benefit is generally evident, and the medicine is discontinued. Many cases are reported attesting the efficacy of this treatment in arresting the hemorrhage and restoring heat and life to patients who were in a state of collapse from excessive loss of blood. Although it is better to avoid vomiting, no ill effects, it is said, are produced by it. The hæmoptysis of the early stages of phthisis may often be readily arrested by this remedy.

*Matico* is sometimes employed. In slight cases the infusion alone is often sufficient.

*Phosphoricum Acidum Dilutum*, in doses of  $\text{gtt. x--xxx}$  in mucilage, thrice daily, is reported upon favorably by M. HOFFMAN (*The Practitioner*, August, 1868), who considers it superior to other mineral acids in hæmoptysis.

**\**Plumbi Acetas***, in combination with morphia and acetic acid, or with opium, is a remedy much used. Dr. PEREIRA considers that the action of sugar of lead and opium in hæmoptysis is rendered more certain and speedy, by being given with a draught containing nitric acid, nitrate of lead being thus formed in the stomach.

*Potassii Nitras* is useful when there is much excitement and fever, but is not to be relied upon alone. It may be given in doses of  $\text{gr. viij--x}$ , several times daily, largely diluted, or combined with tartar emetic or digitalis.

*Sodii Chloridum* is recommended, by Prof. WALSHE, in drachm doses, either in powder or dissolved in water. It is sometimes promptly successful, even when it produces emesis.

**\**Sulphuricum Acidum Dilutum*** is a useful remedy, though less certain in its action than gallic acid, and is a valuable adjunct to other treatment. (F. 398, 400, 405).

*Tannicum Acidum*, in combination with opium and ipecacuanha, has been highly recommended.

*Terebinthina Oleum* deserves a trial, if other less nauseous remedies fail (F. 391).

*Refrigerants* are useful adjuncts to treatment. Nitrate of potassium, sulphuric acid, or cream of tartar (F. 388, 398) may be employed.

*Hypodermic Injections of Ergotine* are recommended, by Prof. WALSHE, as deserving of trial.

*Frigus*. Ice cautiously applied to the spine, or over the heart, will sometimes instantaneously arrest the flow, heat being also applied to the extremities.

*Inhalations*. The following have been advised: *alumen* (F. 397); *ferri chloridum* (F. 394); *ferri subsulphas* (F. 395); *tannicum acidum* (F. 396).



## LARYNGITIS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

If there be time, in a case of acute laryngitis, commence by the inhalation of the steam of boiling water, as much by the nostrils as possible. Leeches, followed by hot fomentations, may be applied to the throat.

If benefit do not follow these remedial measures, tracheotomy ought not to be delayed. The air for respiration ought to be warm and moist, and plenty of it, through a large-sized canula, the orifice of which must be kept clear of secretion.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

407. R. Ammonii chloridi, gr. x-xx  
Aquæ destillatæ, f. ʒj. M.

Use with any form of steam atomizer, throwing a fine spray. In *laryngeal catarrh*, acute as well as chronic. The dose best borne is not above ten grains to the ounce, although as much as two drachms to the ounce have been employed.

THOMAS HAWKES TANNER, M. D., LONDON.

408. R. Acidi hydrocyanici diluti, ℥xv  
Spiritus chloroformi, f. ʒiij  
Aquæ bullientis, f. ʒviij. M.

For inhalation.

The patient should frequently inhale the steam from medicated boiling water, and in the interval it will prove advantageous for him to wear a respirator. He is to be closely watched, kept very quiet, and not allowed to talk. The air of the room must be made warm and moist.

L. WALDENBERG, M. D., BERLIN.

409. R. Sodii chloridi, gr. iv-x  
Aquæ destillatæ, f. ʒj. M.

For inhalation in acute laryngeal catarrh by means of nebulizer.

LONDON HOSPITAL.

410. R. Tincturæ benzoini compositæ, f. ʒj  
Aquæ bullientis, f. ʒx. M.

Let the vapor be inhaled frequently.

411. R. Tincturæ iodinii, ℥xl  
Aquæ bullientis, f. ʒx. M.

To be inhaled frequently.

## RÉSUMÉ OF REMEDIES.

*Acidum Carbolicum.* The inhalation of pulverized solutions of carbolic acid (gtt. j-v to f. ʒj, aq., with a few drops of glycerine added) is frequently of service.

*Alumen*, as an emetic (teaspoonful doses mixed with honey or syrup, and repeated every ten or fifteen minutes until it operates), is an excellent remedy in pseudo-membranous laryngitis. See Croup.



*Antimonii et Potassii Tartras* is sometimes employed in pseudo-membranous laryngitis as an emetic, but is inferior to sulphate of copper or alum. *See Croup.*

*Argenti Nitras*, in solution, is a very useful local application.

*Balsamum Peruvianum.* The recommendation originally made by HOFFMAN, in chronic inflammation of the larynx, of diffusing the vapors of the balsam of Peru, or of benzoin or tolu throughout the air of the patient's room, by throwing the drug upon hot coals, is an excellent one. Or, the vapor may be inhaled through an inhaler.

*Benzoinum* is of service in strumous laryngitis. The following formula may be ordered:—

412. R.	Tincturæ benzoini compositæ,		
	Mucilaginis acaciæ,		
	Syrupi papaveris,	āā	f.ʒj.
	Aquæ cinnamomi,		f.ʒvj. M.

For one dose.

*Bismuthi Subnitrates* has been found highly efficacious, applied by means of insufflation.

*Calx.* Lime water has been successfully employed in pseudo-membranous laryngitis. *See Croup.*

*Catechu* is an excellent ingredient for lozenges to be held in the mouth.

*Glycerina* is often a beneficial topical application.

*Hydrargyrum.* For the use of mercury in pseudo-membranous laryngitis, *see Croup.*

*Inhalations* are frequently employed with great benefit in this disease. The following are the principal preparations used:—*Ammonii Chloridum* (F. 407); *Balsams of Peru and Tolu* (vapor generated by placing them upon hot iron); *Benzoinum* (vapor generated by throwing the drug upon hot coals, and thus impregnating the patient's apartment, or from a common inhaler, F. 410); *Hydrocyanicum Acidum Dilutum* (F. 408); *Iodinium* (F. 411); *Olibanum* (vapor generated by placing the gum-resin on burning coals); *Sodii Chloridum* (F. 409); *Sulphureosum Acidum* (spray or fumigation); *Vapor of Hot Vinegar*; *Steam of Boiling Water* (as much as possible by the nostrils).

*Iodinium.* Iodine inhalations, and the application of tincture of iodine to the fore part of the neck, are advantageous forms of treatment in chronic laryngitis.

*Ipecacuanha* is an excellent remedy in simple catarrhal laryngitis, of the spasmodic form.

*Potassii Chloras*, in doses of gr. vj-xvij, two or three times a day, has been used with success in pseudo-membranous laryngitis. *See Croup.*

## EXTERNAL REMEDIES.

*Baths* of hot water are often of great value.

*Blood-letting*, to be advantageous, must be employed early and copiously, when the powers of the patient are beginning to sink, it will hasten the fatal result. Leeches to the throat are advised by Dr. AITKEN and others, but wet-cupping at the nape of the neck is preferred by some practitioners.

*Cantharis.* Blisters are injurious in the acute, but often beneficial in the chronic form.

*Counter-irritants* are of benefit in chronic laryngitis. The following may be employed:—*Tartar-emetic Ointment* (not much used); *Sub-clavicular Setons* (three or four silk threads); pustulation of the skin of the throat by *croton oil*.



## PHTHISIS.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

413. R.	Olei morrhuæ,		f. 3 <sup>iss</sup>	
	Olei creasoti,		gtt. iv	
	Pulveris tragacanthæ,			
	Pulveris acaciæ,			
	Pulveris amyli,	āā	Ḑj	
	Sacchari,		3l	
	Aquæ anisi,		f. 3 <sup>ivss</sup> .	M.

Take two tablespoonfuls three times a day.

This is recommended as making a palatable mixture. The creasote is said to render the stomach more tolerant of the remedy.

Besides cod-liver oil, other animal fats and oils, where they can be taken and assimilated, are sure to be followed with benefit. Hence milk rich in fatty matters, such as asses' milk, and milk drawn from cows at a short interval after the greater part of their milk has been withdrawn, are found to be followed by improvement, where they are persevered in and are assimilated. So, also, with cream and butter. Dr. BENNETT instances the partial success occasionally of caviar, bacon, pork, mutton chops and the marrow of bones of oxen; while Dr. THOMPSON instances the good effects he has obtained from the use of oil from the foot of the young heifer (neat's foot oil).

But medicine is utterly powerless and useless, unless hygienic means are carried out to the uttermost. They may be enumerated as follows:—

I. A constant supply of pure and fresh air for respiration.

II. Active exercise in the open air. *The risk is in staying in the house, and not in going out of it.*

III. It is important to secure for the patient a uniform, sheltered, temperate, and mild climate to live in, with a temperature about 60°, and a range of not more than 10° or 15°; where, also, the soil is dry and the drinking-water pure and not hard.

IV. The dress of the scrofulous patient ought to be of such a kind as to equalize and retain the temperature of the body. Waterproof coats, boots, and shoes are to be condemned. Flannel ought to be invariably worn next the skin in all seasons.

V. The hours of rest should extend from sunset to sunrise.

VI. In-door or sedentary occupation should be suspended; but out-door employment in the fresh air, even in the midst of snow, has been and may be advantageous.



VII. Cleanliness of body is a special point to be attended to.

VIII. Marriage of consumptive females, for the sake of arresting the disease by pregnancy, is morally wrong and physically mischievous.

IX. The medicinal treatment must be adapted to the site of the local deposits and the general nature of the particular case.

To promote and preserve an appetite for food should be constantly kept in view as one of the great objects of treatment. The following chalybeate very rarely disagrees:—

414. R. Vini ferri, f.℥ij.  
A teaspoonful thrice daily.

415. R. Pilulæ saponis compositæ,  
Pilulæ scillæ compositæ, āā ℥j. M.  
For 8 pills. One at bedtime, to procure sleep. Two may be given if the cough is troublesome.

Or,

416. R. Pulveris ipecacuanhæ compositæ, ℥iv  
Tincturæ scillæ,  
Tincturæ toluianæ, āā f.℥ij  
Misturæ acaciæ, f.℥iiss  
Aquam, ad. f.℥iiij. M.  
A dessertspoonful at night, to quiet the cough.

J. F. CHURCHILL, M. D., PARIS.

The treatment of phthisis by the *hypophosphites* prepared by Dr. CHURCHILL, has been highly vaunted.

The author claims that from the first day of their use there is frequently observed a remarkable increase of nervous power, with a feeling of vigor, strength, and comfort, to which the patient has been long unaccustomed. The digestion is invigorated and the appetite increased. The bowels become regular and the evacuations more copious and less frequent. The cough is relieved, the sleep becomes calmer and more profound, whilst the night sweats diminish or cease altogether. The face becomes fuller, the lips red, the eyes brighter.

If these results be not produced, either the salts are impure, or they are not administered in accordance with the rules laid down by Dr. CHURCHILL, or the patient is suffering from a complication of some other disease, independently of consumption, or the extent of lung structure involved is too great to hope for much benefit.

It is especially as a *prophylactic* that the hypophosphites are recommended by the author, who states that if, without any appa-



rent cause, or under the influence of any cause which induces weakness and exhaustion, such as want, grief, over-fatigue, excess, pregnancy, child-bearing, nursing, rapid growth, slow recovery from illness, a person begins to lose strength, flesh, or appetite, if he suffer from pain in the chest or back, or from shortness of breath; if he complain of sleeplessness, and experiences a general feeling of languor and depression, there is reason to believe that he is predisposed to consumption, or is even already laboring under the general disease. If to the above symptoms be added cough, however slight, especially if it should have come on slowly and during the fine weather season, the probability is greater still. If, with all this, there is feverishness towards evening, sweating, or clamminess at night, particularly about the head or neck, if spitting of blood should occur, it is probable that the complaint has already arrived at the stage of local manifestation in the lungs. Now if, on the earliest appearance of these signs, particularly those first enumerated, the patient takes daily one or two tablespoonfuls of syrup of hypophosphite of lime or soda, he will usually find all the symptoms disappear, and by continuing the remedy, prevent their return. When all the symptoms shall have disappeared, through the use of the hypophosphites, it will be necessary to continue the treatment for a few months, gradually diminishing the doses, ceasing altogether for a week or two, then beginning again. In this way the disease may be completely eradicated.

DR. CHURCHILL'S usual method of treatment is to give a tablespoonful of the syrup of hypophosphite of soda or lime (of the strength of six grains of the salt to the fluid ounce), once or twice a day, in the absence of any inflammatory symptoms. Sometimes a teaspoonful of syrup of hypophosphite of lime in the morning, and the same dose of syrup of hypophosphite of soda at night. For females, particularly persons of nervous temperament or delicate constitution, leading a sedentary life, and unused to physical exertion, the dose should be decreased one-half. For children from seven to fifteen, the dose is the same as for females. From two to seven years of age, one or two teaspoonfuls daily, of the syrups, are sufficient. For infants of a more tender age, the dose should seldom exceed a quarter or half a teaspoonful in twenty-four hours.

The syrups may be taken alone or in a wineglass of water, and should, in general, be exhibited at meal time, either before or after. They have no medicinal taste whatever.



*Contra-indications.* 1. The use of the hypophosphites ought not to be commenced during an acute inflammatory state. 2. Their employment should be temporarily suspended, if, during the course of the treatment, the patient be attacked by any inflammatory complication; but resumed as soon as the acute complication shall have disappeared. 3. They should not be given during an active hæmoptysis, but may, however, be administered boldly, and without fear, in chronic hæmoptysis of a passive form. 4. Their effects should be carefully watched, in the case of patients affected with disease of the heart. 5. The dose should not be too high nor the administration too prolonged. Great mischief may result from incautiously pressing the remedy. Among the signs which indicate that the hypophosphites have been given in excessive doses, are lassitude, wandering pains, headache, buzzing in the ears, vertigo, sudden loss of appetite and strength, and above all, bleeding at the nose, however slight the loss of blood may be.

MEREDITH CLYMER, M. D., NEW YORK.

Counter-irritation to the chest walls, in the earlier stages, before there is much loss of strength, is undoubtedly beneficial; but later it is weakening and annoying. Croton oil liniment is chiefly used for this purpose. A prompt and not too severe application is the following ointment (recommended by Dr. FULLER):—

417. R.	Hydrargyri chloridi mitis,	gr.viiij	
	Iodinii,	ʒss	
	Alcoholis,	f.ʒiss	
	Unguenti,	ʒj.	M.

Rub in a portion over the affected lung, morning and evening, until a pustular eruption comes out.

DR. CORBEL-LAGNEAU, FRANCE.

418. R.	Iodinii,	ʒiv	
	Althææ pulveris,	ʒx	
	Potassii nitratis,	ʒj	
	Alcoholis,	q. s.	
	Aquæ,	q. s.	M.

Triturate the iodine with the alcohol, to obtain a minute division, add the nitrate of potassium and the marshmallow, make a fine mixture, and by means of the water, a firm paste, which divide into ten equal cones. One or two to be burned, morning and evening, in the chamber of persons affected with phthisis.

J. WARING CURRAN, M. D., DUBLIN.

419. R.	Zinci oxidi,	gr.ij	
	Extracti conii,	gr.j.	M.

For one pill, to be taken three times a day. The quantity of the oxide of zinc is gradually to be increased.



In the latter stages of phthisis, where profuse sweating and colliquative diarrhœa harass the patient and rapidly lower the vital capacity, this combination is very effective. It is of great value also in the earlier stages of the disease. It seems to steady the nervous system and act as a sedative to the wandering pains.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

420. R. Morphiæ acetatis, gr.ij  
Potassii cyanidi, gr.ij  
Acidi acetici, f.ʒj  
Extracti pruni virginianæ fluidi, aa  
Misturæ acaciæ, aa f.ʒij. M.

A teaspoonful four or six times a day, as a sedative mixture, for the cough of phthisis.

421. R. Liquoris morphiæ sulphatis, f.ʒj  
Extracti pruni virginianæ fluidi, f.ʒij  
Acidi sulphurici diluti, f.ʒij. M.

A teaspoonful three or four times a day, when night sweats and cough are troublesome.

422. R. Syrupi hypophosphitis, f.ʒij.

A teaspoonful thrice daily, after meals.

423. R. Extracti opii, gr.ss  
Aquæ, f.ʒj. M.

For one inhalation, twice a day, by means of any form of steam atomizer throwing a fine spray. In the irritative cough of phthisis, causing gastric irritability.

424. R. Tincturæ iodinii compositæ, ℥x  
Aquæ, f.ʒj. M.

For atomization.

425. R. Tincturæ ferri chloridi, f.ʒj  
Acidi muriatici diluti, f.ʒij. M.

Twenty-five drops in sweetened water drawn through a tube before meals. In the treatment of tubercles in the lungs, complicated with tubercular diarrhœa and impairment of digestion.

Also the following :—

426. R. Extracti opii, ʒj  
Plumbi acetatis, ʒij. M.

Make into 20 suppositories. One to be introduced morning and evening.

427. R. Syrupi hypophosphitis, aa  
Extracti pruni virginianæ fluidi, aa f.ʒij. M.

A dessertspoonful thrice daily.

428. R. Olei morrhuæ f.ʒj  
Aquæ menthæ piperitæ, f.ʒss  
Tincturæ aurantii, f.ʒss  
Misturæ acaciæ, f.ʒijss  
Olei gaultheriæ, ℥x. M.

A dessertspoonful three times a day. This formula disguises somewhat the taste of the cod-liver oil.



Or,

429. R. Olei morrhuae,

f. 3ss.

For one dose; to be taken three times a day in *carbonic acid water*.

Place in a tumbler a small amount of any preferred syrup (orgeat or sarsaparilla is the best adapted to disguise the taste of the oil), and fill up with carbonic acid water, from a bottle furnished with a syphon for table use; then, while it is still foaming, put in a tablespoonful of the oil. It is astonishing how perfectly the taste is concealed in this manner. Other modes of taking the oil are, floating on ice water, in lemon juice, and in the froth of porter. Less than a tablespoonful is not worth taking. The best time for its administration is between meals, after the process of digestion is pretty well finished. Persons are exceptionally met with who take it in preference just before meals, and thus avoid the disagreeable eructations. Nobody likes to take it the instant after meals.

430. R. Acidi arseniosi,  
Ferri lactatis,  
Syrupi,

gr. j

3ss

q. s.

M.

For 30 pills. One thrice daily.

Arsenic is an agent which may frequently be employed with advantage in cases of slow consumption.

It may be given as above, or as follows:—

431. R. Liquoris potassii arsenitis,  
Extracti pruni virginianæ fluidi,

f. 3ij

f. 3iij.

M

A teaspoonful thrice daily.

432. R. Calcis hypophosphitis,  
Sodii hypophosphitis,  
Misturæ acaciæ,

3ss

3ij

f. 3iij.

M.

A teaspoonful thrice daily, with plenty of cream, eggs, etc., about three ounces of whisky daily and F. 420 for the irritative cough.

In a case in which cavities had formed in the lungs.

433. R. Quiniæ sulphatis,  
Acidi tannici,  
Extracti gentianæ.

3ij

3j

q. s.

M.

For 20 pills. One thrice daily, to reduce night sweats.

HORACE DOBELL, M. D., LONDON.

Our author, after a long series of observations, and a process of inductive reasoning, arrived at the conclusion that in tubercular disease there is a defective action of the pancreas on fats, and particularly on solid fats, and thus was led to study the action of the



secretion ; first, with the view to determine its exact character and nature ; and secondly, to find some means of obtaining and preserving the active principles of the pancreas in a form suitable for administration as a remedial agent. He was thus led to the invention and use of the "Pancreatic Emulsion of Fat" and "Pancreatine."

It is the best to give the *Pancreatic Emulsion* from one to two hours after a full meal, such as breakfast or dinner, particularly avoiding a longer interval, and also avoiding warm drinks for two or three hours afterwards. When cod-liver oil agrees, give a tablespoonful of oil directly after breakfast, to supply oleon to the blood through the portal system, and a tablespoonful of emulsion, in a cup of milk or water, two hours after dinner, to supply the blood with pancreatized solid fats through the lacteal system. If cod-liver oil cannot be taken, give the emulsion two hours after breakfast, and two hours after dinner.

In the very few cases in which the stomach does not easily tolerate the emulsion, it is due, almost as a rule, to excessive acidity of the digestive fluids ; and an alkaline powder of soda and columbo, or an effervescing draught of citrate of sodium and potassium, given before the meal which precedes the dose of emulsion, generally overcomes the difficulty. It must be borne in mind that some adults cannot digest milk, and in these cases the emulsion should be mixed with water instead. Brandy or rum may be added in any case, if preferred, and a small plain biscuit should be taken after the dose (*Lancet*, November 17, 1866).

*Pancreatine* is given in doses of three to five grains, in wine or water, or on bread and butter, directly after food, or immediately after each dose of cod-liver oil.

Dr. DOBELL has prescribed the "Pancreatic Emulsion" in about 2500 hospital cases, and in 187 cases in private practice. Of the latter careful notes were taken and published in the London *Lancet*. In the 187 published cases, emulsion agreed in 180 ; disagreed in seven. Cod-liver oil agreed in 75 ; disagreed in 98 ; was not tried in 14. In these 187 cases no cod-liver oil was given during treatment with emulsion, so as not to confuse the effects of the two remedies. But in daily practice, Dr. DOBELL recommends both oil and emulsion to be taken, if the stomach will bear them. The proportion of cases in which emulsion agrees will not be as large as here stated, unless care is taken to correct obvious defects in



digestion by other remedies. In the true first stage, our author's experience is derived principally from private practice, such cases not often appearing at hospitals. Of the 2500 hospital cases who have taken the emulsion, many have been in an extremely advanced stage of disease; and in some of these the emulsion has appeared to prolong life in a remarkable manner, being retained on the stomach long after all other kinds of food had ceased to be tolerated.

The experience of the effects of the Pancreatic Emulsion of Fat, as referred to in several journals by a number of independent observers, corresponds in a remarkable degree with the result of Dr. DOBELL's investigations and experiments.

PROF. BALTHAZAR W. FOSTER, M. D., LONDON.

434. R.	Ætheris,	f. ̄ijss	
	Olei morrhuæ,	f. ̄iv.	M.
Dessertspoonful thrice daily, before meals.			

This is a new physiological attempt to introduce cod-liver oil into the system, by overcoming the difficulty of assimilating fat, which is developed to the greatest extent at the very stages of the disease in which perfect assimilation is most needed. To pour oil into a patient's stomach, without at the same time taking measures to insure its digestion, is a crude kind of therapeutics. Experimental physiology has taught us that the only fluids in the body which have the power of acting upon fat, so as to render it fit for absorption, are the secretions of the pancreas and the duodenal glands. Æther has the power of stimulating the glands to renew their healthy action and places the fatty matter in a state of fine division with their abundant secretion. It also masks the unpleasant taste of the oil.

PROF. FURTER, MONTPELLIER.

Our author reported some time ago, before the Paris Academy, his treatment of phthisis, as employed with good results at the clinic in Montpellier, under his charge. It consists in the use of raw mutton or beef, given in conjunction with strongly diluted alcohol, in small doses.

435. Take some finely minced raw mutton or beef, and roll it up in sugar or in a saccharine electrolyte. Give in teaspoonful doses to the amount of  $\frac{8}{10}$  of an ounce per day.



436. R. Alcoholis, f. ʒj  
Syrupi, f. ʒiij. M.  
A teaspoonful dose every hour. The dose and frequency of administration are to be modified by the patient's individuality.

## PROF. R. J. GRAVES, M. D., DUBLIN.

437. R. Quiniæ sulphatis, gr. iiss  
Acidi sulphurici diluti, f. ʒss  
Tincturæ hyoseyami, ℥xxv  
Infusi cascarillæ, f. ʒiij. M.  
To be given during the day, in three doses, to combat the night sweats in beginning tubercular phthisis.

438. R. Antimonii et potassii tartratis. gr. xxx  
Ipecacuanhæ pulveris, ʒj  
Olei tiglij, gtt. xx  
Unguenti rosæ, ʒj. M.  
A useful ointment to produce slight counter-irritation in delicate women and children.

## DR. GUÉNEAU DE MUSSY, FRANCE.

439. R. Belladonnæ radices pulveris, gr. xv  
Acaciæ pulveris, ʒviij. M.  
To be used as a snuff, ten or twelve times a day, by consumptive patients with tickling sensations in larynx, and attacks of dry and painful coughing.

440. R. Sodii bicarbonatis, ʒijss  
Sulphuris loti, aa  
Bismuthi subnitratæ, ʒij. M.  
Divide into 20 powders. Give one every two hours. Four or five days of treatment suffice to suspend or notably lessen the night sweats of the consumptive patient, of whom the condition is greatly improved at the end of several weeks.

## PROF. JACCOUD, PARIS.

*On the Administration of Arsenic in Phthisis.*—In chronic phthisis, so soon as the phenomena attributable to anæmia have been remedied by iron, or in the absence of amelioration after a delay of a couple of months, the author abandons ferruginous preparations, and has recourse to arsenical medication. He employs exclusively granules of arsenious acid, of gr.  $\frac{1}{10}$  each, and administers them at the commencement of each of the two principal meals. He commences with two a day, and every week increases two a day, until eight or ten a day are given. When this maximum dose is attained, he maintains it indefinitely, unless phenomena of intolerance make their appearance, such as cramps, inflammation of the eyes, cutaneous eruptions, vomitings, diarrhœa. Then, however, he does not stop the medicine, but diminishes, temporarily, the



dose, and returns, as soon as possible, to the maximum of toleration.

Arsenic acts powerfully upon the nutritive processes in chronic pulmonary phthisis. It quiets the nervous excitement, and possesses an anti-febrile action sufficiently marked to effectually combat the evening intermittent fever.

So long as the disease remains chronic, and does not develop acute attacks of pseudo-continuous fever, the arsenical medication ought to be maintained at the maximum of toleration, conjointly with the special regimen, cod-liver oil, cinchona and alcoholized raw meat.

*On the Administration of Cod-liver Oil in Phthisis.*—When the cod-liver oil is badly supported alone, in chronic pulmonary phthisis, the author adds to it brandy, rum, kirsch or whisky, in the proportion of two parts of the oil to one of the spirit, and recommends the patient to close the nostrils at the moment of swallowing it. He commences by small doses of the oil and spirit mixture; then two tablespoonfuls a day, and advances to five or six fluid ounces a day.

*On the Administration of Iron in Phthisis.*—The author reserves the employment of ferruginous preparations for those cases where the patients present the certain signs of globular anæmia. He gives, in preference, the syrup of the iodide of iron to young children, and the pills of the iodide of iron in other cases. From four to eight of these pills are to be taken a day, at the commencement of the meals. He advises not to administer the iron where there has been recent hæmoptysis.

*On the Administration of Raw Meat in Phthisis.*—In the treatment of patients with whom the physician is obliged to dissimulate, he may order the pulp of raw filet of beef, well deprived of all fibrous matter, in some unleavened bread, under the pretext of administering medicinal boluses. When he can act openly the author prefers to mix the pulp of the raw meat, properly prepared, with brandy, rum or whisky, in such a manner as to obtain a dough-like mass, which the patient takes with sugar or salt, according to taste, in tablespoonful doses, during the day. This mixture is very palatable, and does not produce that rapid intolerance which is often observed with other meat preparations.

*On the Employment of Counter-irritation in Phthisis.*—The author, in acute phthisis, attacks the pulmonary disorder by means



of large flying blisters, renewed without interruption. Instead of the ordinary dressing, he covers the vesicated surface, and envelops it in every direction, a finger's breadth, by diachylon plaster. On removing the protecting plaster at the end of four days, the cicatrization is found complete.

In commencing chronic phthisis, the author applies, under the clavicle of one or both sides, cauteries of Vienna paste, of the size of a sixpence at the maximum, and repeats these punctiform cauterizations as long as any favorable influence is noticed.

441. R. Extracti cinchonæ, ℥ss-j  
 Tincturæ canellæ f.℥ij  
 Syrupi aurantii corticis, f.℥j  
 Vini rubri, f.℥iv  
 Spiritûs vini gallici, f.℥j-iiij. M.

A tablespoonful every couple of hours, in the exhaustion and delirium of acute phthisis. The patient should also take meat broth or beef essence several times a day.

442. R. Vini cinchonæ f.℥iv  
 Tincturæ canellæ, f.℥ij  
 Syrupi aurantii corticis, f.℥j  
 Spiritûs vini gallici, f.℥j-iiij. M.

To be used in the same manner as the above formula, the wine of cinchona replacing the extract and making a mixture not so thick.

443. R. Digitalis, gr.v-vij  
 Aquæ bullientis, f.℥j. M.  
 Make an infusion, filter and add

444. R. Extracti cinchonæ, ℥ss-j  
 Tincturæ canellæ, f.℥ij  
 Syrupi aurantii corticis, f.℥j  
 Vini rubri, f.℥iv  
 Spiritûs vini gallici, f.℥j-iiij. M.

A tablespoonful to be given every hour when, in acute phthisis, the pulse is nearly effaced and the symptoms of cyanosis and dyspnœa increase. The digitalis is to be withdrawn so soon as the contractility of the heart is restored.

445. R. Chlorali, ℥ijss  
 Olei morrhuæ, f.℥vj. M.

One or two tablespoonfuls in the evening, to induce sleep, lessen night sweats, and awaken the appetite. The cod-liver oil, to which chloral is added, is less nauseous than the pure oil.

446. R. Spiritûs vini gallici, f.℥iiij  
 Tincturæ canellæ, f.℥j  
 Syrupi,   
 Aquæ, aa f.℥iss. M.

Dose, a tablespoonful. A convenient way of administering alcohol when indicated in phthisis.



RODERICK MACLAREN, M. D., CARLISLE, ENGLAND.

Our author recommends a *long sea voyage* in phthisis pulmonalis, and prefers the Australian one.

But a sea voyage is a rough remedy, and it cannot be expected that it will be beneficial in every case. To send away a patient who is in the last stage of phthisis, with night sweats, diarrhœa, and cavities in the lungs, is only cruelty; to hope even to survive the remedy, he must be able to stand some fatigue, to bear even some further reduction in strength without being brought to a stage from which there is no return; for the possibility of seasickness at the outset must be considered; or even without this—for, strange to say, phthisical patients often escape it—there is change of mode of life, and probability of stormy weather, to be taken into account, and there is the chance of detention in the tropical calms, which produce loss of appetite, profuse perspiration, and often diarrhœa.

The cases which offer the best prospects are those in which the patient undertakes the voyage before pulmonary alteration is far advanced; and especially when, in addition to close confinement, long hours at business, or close application to mental work seems to have been a predisposing cause of the illness; also those in which the progress of the disease is very slow, which improve during a favorable, and grow worse during an unfavorable season, year after year. When the infiltration of the lung is localized and chronic, when it is confined to the one side, and there is absence of evidence of disease elsewhere, it may be looked on as a favorable case, and the further the departure from this condition the less are the patient's chances of benefit. It is stated that cases in which hæmoptysis is the first, or at least a very early symptom, do especially well. Cases are unsuitable for a voyage, in which there are signs of extensive progressive excavation, and all in which there is great muscular weakness. When we have evidence of the disease being general, as shown by glandular, bowel or laryngeal disease, our recommendation should certainly be withheld. The bowels in particular should be in good trim, for the sedentary life and peculiar diet of a ship are apt, in healthy people, to produce intestinal disturbance (constipation and subsequent diarrhœa, or either of these alone). In a case which persistently grows worse under favorable circumstances of habitation, etc., on shore, the prospect of benefit would be small. A phlegmatic habit of body



should also be looked upon, to a considerable extent, as a counter-indication for this remedy. While speaking on this part of the subject, it is to be borne in mind that during its early stage phthisis is a curable, perhaps a very curable disease, under proper treatment. In its later stages it is cured with difficulty, and a sea voyage does not seem in any degree to lessen this difficulty.

A. MALET, M. D., RIO DE JANEIRO.

Our author gives (*Bulletin Generale de Therapeutique*, August 30th, 1868), in the therapeutics of pulmonary phthisis, the preference to the *iodide of calcium* in all cases not of syphilitic origin. He does not claim it as a specific, but says it awakens the appetite, regulates the digestion, renders the respiration freer and deeper, diminishes the cough and modifies the expectoration, increases the strength and lessens the perspiration. If constipation ensue in consequence of its long use, it will often disappear of itself; otherwise the dose may be diminished, or the remedy temporarily stopped. He gives the iodide of calcium in a simple aqueous solution, to be taken at meal-times. Not more than eight grains of the salt should be given, in divided doses, during the day. A larger amount than this does harm.

DRS. MONTARD MARTIN AND HÉRARD, PARIS.

447. R. *Acidi arseniosi*, gr.j.

For 60 granules. Seven or eight a day, of these granules, to be taken at first, the dose to be speedily carried up to ten or fifteen. Never more than two should be given at a time, and they should be administered as often as possible before meals. The treatment should be suspended from time to time.

Researches have shown the entire harmlessness of arsenic, when properly employed, as well as its undeniable efficacy in certain forms of tubercular phthisis. Almost all the patients, after a few days' treatment, exhibited a marked improvement in their general condition. The appetite improves, the strength returns, the complexion is clearer, and the eye is more animated; and at the end of three weeks or a month flesh begins to be gained. The local malady undergoes less change; but even this is sometimes sensibly modified. The most favorable cases are those in which there is no acute fever or serious digestive disturbance. M. LOLLOIT, the most recent observer, finds that the daily administration of one-tenth of a grain produces a diminution of temperature, and a very notable diminution in the amount of urea.



PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

*Cod-liver oil* has a special and well-merited reputation. On the other hand, perhaps, no remedy has ever been so much abused as this one. Whoever supposes that the mere presence of a thick nose, a sore upper lip, or a bunch of enlarged cervical glands, affords sufficient grounds for the prescription of this medicine, will often fail to benefit his patient, and sometimes will do him harm. Daily experience teaches, however, that such is the general belief, and that he who seeks to combat it does not merely fight a wind-mill. A most serviceable means of distinction between the cases in which cod-liver oil is indicated and those in which nothing is to be expected from it, is afforded by the symptoms of the torpid and erethitic forms of scrofula. When the patient's slender frame, the lack of fat beneath his skin, and his accelerated pulse warrant the belief that his nervous system is in a state of over-activity, cod-liver oil is generally of most signal benefit. Under its use the plumpness of the body increases, while the general susceptibility of the system, and the diseases consequent upon it, subside. These are the cases to which this article owes its name as an anti-scrofulous remedy. But if the patient be clumsy and thick-set; if the nose and upper lip be enlarged, and the adipose layer over the rest of the body strongly developed; if the action of the heart be retarded rather than accelerated; if the irritability of the nervous system seem unusually obtuse; in short, should there be reason to suppose that the waste of the system is diminished rather than increased, we cannot hope to relieve the disease by means of the oil. Nevertheless, it is precisely this class of patients who in vain have taken such enormous quantities of it in the course of their lives. Besides the oil, and as a corroborant of its effects, so to speak, articles containing a little tannin, such as parched acorns, "*acorn coffee*," and home-made infusion of *walnut leaves*, are very often prescribed. Such a practice is greatly to be commended whenever there is a chronic catarrh of the intestines, embracing the digestion and the absorption of chyle, and where apprehensions are entertained that the oil may aggravate the intestinal disorder. In order to make children take the acorn coffee as willingly as real coffee, it is sufficient to add a few coffee beans to the acorns before roasting them.

In the treatment of phthisis, fever is the symptom which principally demands attention whenever it persists at all severely, in



spite of the remedies directed against the main disease. Digitalis and quinia have a well-merited reputation as means of arresting the abnormal calorification, and reducing the animal heat, in spite of the continuation of the disease.

448. R. Pulveris digitalis, gr.x  
 Pulveris ipecacuanhæ,  
 Pulveris opii, āā gr.v  
 Extract helenii, q. s. M.

For 20 pills. One three times a day.

Add quiniæ sulphatis, ʒj, to the above prescription when the type assumed by the fever becomes periodical, the evening exacerbations severe, and the chills by which they are ushered in pronounced.

Our author is so much in the habit of using this (known as Heim's) pill, with or without quinine, in consumption, when the fever proves refractory to other remedies, that it has become a very common prescription at his clinic. The exhibition is suspended whenever a distinct reduction of the temperature and of the frequency of the pulse becomes apparent, and is resumed so soon as the effect subsides. Patients pretty soon learn to judge for themselves when it is time to stop the pills, and when to resume them.

DOUGLASS POWELL, M. D., BROMPTON.

449. R. Potassii chloratis, ʒij-ijj  
 Morphiæ muriatis, grs.iss-ij  
 Glycerinæ, f.ʒss  
 Syrupum, ad. f.ʒiv. M.

A teaspoonful, to be swallowed slowly, in the rawness of the tongue and painful deglutition of advanced phthisis.

It acts locally on the parts affected, relieving at the same time the cough. Of course, in the latest stages of the disease this will but render the remaining hours of life more comfortable; but there are some cases where this condition of the tongue and throat will come on earlier, and by rendering the taking of nutrients or stimulants almost impossible, cause death from exhaustion. In such instances, the above combination relieves pain, cleanses the tongue, and enables the patient to take nourishment and remedies which greatly prolong life (*Lancet*, December 19, 1868).

DR. SUNDERLIN.

450. R. Ammonii chloridi, gr.xxx  
 Opii pulveris, gr.ix  
 Digitalis pulveris,  
 Scillæ pulveris, aa gr.xv. M.

Divide into 30 pills. One every six hours, to quiet the cough and facilitate the expectoration in the early stage of phthisis.



451. R. Morphiae sulphatis, gr.j  
Syrupi ferri iodidi, f.℥ss  
Glycerinae, f.℥ijss. M.

A teaspoonful two or three times a day, to quiet the cough and retard the emaciation in phthisis.

THOMAS HAWKES TANNER, M. D., LONDON.

452. R. Ferri iodidi, gr.vj-xviii  
Glycerinae, f.℥ij  
Infusum calumbæ, ad. f.℥vj. M.

Two tablespoonfuls three times a day.

In strumous ulcers, etc., where the stomach will not tolerate cod-liver oil, the above is useful.

453. R. Ammonii iodidi, gr.j-vj  
Infusi cinchonæ flavæ, f.℥ss. M.

For one dose, to be taken twice or thrice daily, before food. Very valuable in strumous enlargement of the absorbent glands. The dose is to be graduated according to the patient's age. At the time the medicine is given internally, the following ointment should be rubbed into the swelling night and morning :—

454. R. Ammonii iodidi, ℥j  
Adipis, ℥j. M.

In cases of phthisis where the stomach will not tolerate any form of cod-liver oil, resort may be had to *cod-liver oil embrocations* :—

455. R. Olei morrhuae, f.℥iiijss  
Spiritus ammoniæ aromatici, f.℥j  
Tincturæ opii, f.℥ss  
Olei lavandulæ, m℥xxx. M.

One-half to be rubbed over the chest and abdomen, night and morning.

Or,

456. R. Olei morrhuae, f.℥j  
Olei cajuputi, f.℥j. M.

To be rubbed over the chest at bedtime, and applied by means of lint well saturated with it. The cajuput oil well disguises the smell of the embrocation.

457. R. Ferri ammonio-sulphatis, ℥ss-℥j  
Aquæ destillatæ, f.℥vj. M.

Two tablespoonfuls every six or eight hours, in cases where, on account of hæmoptysis, an astringent preparation of iron is indicated.

458. R. Liquoris potassæ, f.℥ij  
Tincturæ cinchonæ compositæ, f.℥vj  
Decoctum cinchonæ flavæ, ad. f.℥vj. M.

Two tablespoonfuls twice or thrice daily.

Often beneficial in the early periods of the disease. But it is a less favorite remedy with our author than,



459. R. Spiritus ammoniæ aromatici,  
 Spiritus chloroformi,                      āā      f.3vij  
 Morphiæ muriatis,                                      gr.j  
 Extracti cinchonæ fluidi,                      f.3ss  
 Tincturam cinchonæ,                      ad. f.3iij.                      M.
- One teaspoonful in a wineglass of port wine, three times a day.

In certain cases of phthisis this mixture is very useful, especially in conjunction with cod-liver oil and a liberal diet.

If the *night sweats* weaken and annoy the patient, they may be treated with,

460. R. Acidi gallici,                                      ℥ij  
 Extracti cannabis indicæ,                      gr.v  
 Confectionis rosæ,                                      gr.x.                      M.
- For 10 pills. One to be taken every night at bedtime.

Or,

461. R. Zinci oxidi,                                      gr.xij  
 Extracti conii,  
                     vel,  
 Extracti hyoseyami,                      gr.xviii.                      M.
- For 6 pills. One to be taken every night at bedtime.

For the relief of night sweats in phthisis and other exhausting diseases, there are few remedies more serviceable than the foregoing.

#### SYMES THOMPSON, M. D.

The *tincture of the chloride of iron* is far superior to other chalybeates. The improvement of appetite, diminution of flatulence, etc., which occur under its administration, are often remarkable, cod-liver oil and other fats, refused previously, being digested without discomfort. It both checks diarrhœa and relieves constipation, by giving tone to the feeble muscular fibres of the bowels; it lessens night sweats, though these often call for oxide of zinc in addition, and is a valuable remedy in hæmoptysis (*Practitioner*, September, 1868).

#### JOHN C. THOROWGOOD, M. D., LONDON.

462. R. Sodii hypophosphitis,                      gr.v  
 Glycerinæ,  
 Aquæ,                      āā      f.3ss.
- For one dose, thrice daily.

In addition to Dr. THOROWGOOD, Drs. C. J. B. WILLIAMS and C. J. WILLIAMS (the latter one of the physicians at the Brompton Hospital), speak of the value, in phthisis, of the *hypophosphites*,



which, at first so highly lauded by Dr. CHURCHILL, of Paris, have of late fallen somewhat into disrepute.

WALTER HYDE WALSH, M. D., F. R. C. P., LONDON, EMERITUS PROFESSOR UNIVERSITY COLLEGE HOSPITAL, LONDON, ETC.

Among the conclusions at which our author has arrived in regard to the treatment of chronic consumption by *cod-liver oil* are as follows:—

(1.) That it more rapidly and effectually induces improvement than any other known agent. (2.) That its power of *curing* the disease is undetermined. (3.) That it relatively produces more marked results in the third than in the previous stages. (4.) That it increases weight, in favorable cases, with singular speed, and out of all proportion with the actual quantity taken. (5.) That it sometimes fails to increase weight. (6.) That in the great majority of cases when it fails to increase weight it does little good in other ways. (7.) That the effects traceable to the oil in the most favorable cases, are: increase of weight, suspension of colliquative sweats, improved appetite, diminished cough and expectoration, cessation of sickness with cough, and gradual disappearance of active physical signs. (8.) That in some cases it cannot be taken, either because it disagrees with the stomach, impairing the appetite (without itself obviously nourishing) and causing nausea, or because it produces diarrhœa. (9.) That in the former case it may be made palatable by associating it with a mineral acid; and in the latter prevented from affecting the bowels, by combination with astringents. (10.) That intra-thoracic inflammations and hæmoptysis are contra-indications to its use, but only temporarily so. (11.) Diarrhœa, if depending on chronic peritonitis, or secretive change, or ulceration in the ileum, affords no contra-indication to the use of the oil; even the profuse diarrhœa caused by extensive ulceration of the large bowel is not necessarily made worse by it. (12.) That the beneficial operation of the oil diminishes, *cæteris paribus*, directly as the age of those using it increases. (13.) That the effects of the oil are more strikingly beneficial when a small extent of lung is implicated to an advanced degree, than where a relatively large area is diseased in an incipient stage. (14.) That when chronic pleurisy or chronic pneumonia exists on a large scale, the oil often fails to relieve the pectoral symptoms. (15.) That it often disagrees when the liver is enlarged, and probably fatty. (16.) That the weight may be increased by it and yet the



local disease go on. (17.) That weight may increase, the cough and expectoration diminish, night sweating cease, the strength which had been failing remain stationary, under the use of the oil, and yet the local disease be all the while advancing. (18.) That of the three kinds of oil, the brown, light brown, and pale, the brown is the most efficacious. (19.) That the dose of the oil at the outset should never exceed, often fall short of, a drachm; it may be taken immediately before, immediately after, or midway between meals, the idiosyncrasy of the patient being the best guide as to the fittest time. (20.) That the vehicle may be water, milk, orange wine, infusion of quassia or chiretta, weak brandy and water, or any aromatic water agreeable to the patient. (21.) That the dose may be gradually increased to half an ounce, twice, or at most, thrice in the twenty-four hours. (22.) That if there be disposition to regurgitation of the oil, the whole daily quantity may be taken with advantage at bedtime. (23.) That if the stomach reject the oil absolutely, it may be administered in enemata, combined with an astringent, or by inunctions; the rectum, however, ordinarily grows irritated too soon to allow of sufficient continuation of the enemata; through the skin, the oil acts more efficaciously; often an inunction of simple olive oil after the warm bath improves the flesh, and diminishes the cough and chest irritation. (24.) That ozone, if combined with the oil, slackens the pulse some ten or fifteen beats per minute. (25.) That the attempts to prove almond oil, cocoanut oil, and neat's foot oil as efficacious as the oleum morrhue, have failed. (26.) That some patients to whom the oil is unbearable, digest cream well; a pint to a pint and a half has been taken daily without gastric disturbance, and with manifest increase of flesh. (27.) That glycerine often agrees well when the cod-liver oil is unbearable, and then, especially in children, decidedly increases the weight. (28.) That the pancreatic emulsion of solid fat, recommended by Dr. DOBELL (see page 175), is certainly well borne by some persons unable to digest or even retain cod-liver oil in their stomachs.

Our author, without daring to endorse the statement of BERTON, of Montpellier, France, that the *compressed air-bath* will, unaided, occasionally cure phthisis, can, however, bear witness to the great relief of dyspnœa, cough, expectoration, and constitutional erethism, which may be effected by its cautious employment.

*Inhalation of dry iodine vapor* certainly controls excessive



secretion from the tubes, and has occasionally appeared to improve the constitutional state. The inhalation of warm water, impregnated with emollient herbs, such as *althæa officinalis*, or with narcotic extracts, palliates cough, dryness of throat, and laryngeal irritation. Inhalations of *tar*, *creosote* and *carbolic acid*, simple, or in association with sedative extracts, have occasionally produced remarkable improvement in the local and constitutional state.

A palliative influence appears to be exercised in the early stages by the *mineral waters* of Ems, Oeynhausen, Eaux-Bonnes, St. Sauveur, and Caunterets. But Eaux-Bonnes should be avoided when there is hæmoptoic tendency.

A *sea-voyage*, more especially in the case of young adult males, will occasionally work more effectual change in the phthisical organism than any other single influence, or any combination of influences. Not only is the local disease in some cases stayed, and the damaged lung restored to the maximum of possible repair, but the whole constitution undergoes such remodeling, as to render a fresh outbreak of the tuberculizing process an unlikelihood.

For the influence of *climate* upon phthisis, see further on, in the section on Climate for Invalids.

#### C. J. B. WILLIAMS, M. D., LONDON.

The following directions for the administration of *cod-liver oil* in phthisis are useful (*Lancet*, July 4th and August 15th, 1868):—1. The *best time* for administering it is immediately after, or to those who prefer it, at or before a solid meal. 2. In cases of *peculiar weakness* of *stomach*, with tendency to retching or vomiting, strychnia (gr.  $\frac{1}{32}$ – $\frac{1}{16}$ ) proves a most valuable adjunct. So does salicine. Neither of these, though a powerful tonic, has any of the heating properties of quinine or iron. If their bitter taste is objected to, they may be given in the form of pill, after or before the oil. 3. It may be advantageously *combined with a mineral acid*. Nitric acid is best in inflammatory cases, and in those attended with much lithic deposit in the urine, but its tendency to injure the teeth is an objection to its long-continued use. Sulphuric acid is more eligible where there is liability to hæmoptysis, profuse sweats, or diarrhœa. But in most cases, for long continuance, diluted phosphoric acid is preferable to either. 4. The *bulk of the whole dose* of the oil and vehicle should be so small that it may be swallowed at a single draught; therefore, the vehicle should not exceed a tablespoonful, with at first a teaspoonful of the oil, to be



gradually increased to a tablespoonful. 5. The *dose* of the oil should rarely exceed a tablespoonful, twice or thrice daily. Larger quantities either derange the stomach or liver, or some of it passes unabsorbed by the bowels. 6. The *diet* requires attention. With some persons the oil agrees so well, and so much improves their digestive powers, that they require few or no restrictions in diet, but this is not the case with the majority. The richness of the oil proves more or less a trial, sooner or later, to most persons; therefore, it becomes proper to omit or reduce all other rich and greasy articles of food. All pastry, fat meat, rich stuffing, etc., should be avoided, and great moderation observed in the use of butter, cream, and very sweet things. Even new milk in any quantity is not generally well borne during a course of oil, and many find malt liquor too heavy, increasing the tendency to bilious attacks. A plain nutritious diet of bread, fresh meat, poultry, game, with a fair proportion of vegetables, and a little fruit, and only a moderate quantity of liquid at the earlier meals, commonly agrees best. 7. Should a bilious *attack* come on, indicated by nausea, headache, furred tongue, offensive eructations, high-colored urine, etc., it is necessary to suspend the oil, lighten the diet, and give blue pill or calomel, with an aperient on alternate nights, and an effervescing saline twice or thrice during the day. In a few days, when the attack has passed off, the oil may be resumed, beginning with small doses, as at first. 8. In all cases, during the use of the oil, the *bowels* should be kept regular in action, and if this cannot be done by regularity of habit and diet, it should be effected by the use of a mild daily pill of rhubarb or aloes. 9. According to Dr. RINGER, the *taste* of the oil is removed, and nausea often prevented, by a little salt taken immediately before and after the oil.

## CONSUMPTION HOSPITAL, LONDON.

463. R.	Morphiæ muriatis,	gr. ss	
	Acidi hydrocyanici diluti,	℥xv	
	Acidi muriatici diluti,	℥ijss	
	Oxymellis scillæ,	f. 3ss	
	Aquæ,	q. s. ad. f. 3j.	M.
Dose—One to two drachms.			

## RÉSUMÉ OF REMEDIES.

*Acidum Carbolicum.* The inhalation of pulverized solutions of carbolic acid are of frequent benefit in the advanced stages of phthisis, by diminishing the secretion and lessening the cough and exhaustion, and by correcting fetor of the expectorations. A solution of drops xv–xx, in two pints of water, with the addition of one or two ounces of tincture of conium, or of alcohol, may be used (*See Inhalations*, p. 192).



*Acidum Tannicum.* Prof. STILLÉ says that this medicine appears sometimes to remove the crepitating rhonchi so generally observed around crude tubercles at the apex of the lung during the first stage of phthisis, while it diminishes the dyspnoea, cough and expectoration. At a late period, it sometimes so manifestly palliates all the symptoms as to inspire a belief that a cure has been accomplished, converting moist rhonchi, or gurgling, into signs of solidification merely, or of a dry cavity. The value of such an influence should not be underrated, for it is in the highest degree probable that the extension of tuberculous deposits is preceded by a congested state of the pulmonary parenchyma, and that by restoring the latter, we may prevent the former. The more nearly the disease resembles the acute form of phthisis, the less appropriate will the medicine become.

*Æther* has been recommended to promote the assimilation of cod-liver oil, by Dr. FOSTER (F. 434). The objections to his preparation are its disagreeable taste, and the eructations it occasions.

\**Alcohol.* Dr. ANSTIE says that there is a variety of pulmonary phthisis, especially common in persons with delicate skin and slight frame, with marked tendency to colliquative sweating, and a notable inability to assimilate either ordinary food or fatty matter of any kind, in which the tolerance for large and long-continued doses of alcohol is very remarkable, and the benefit produced by such treatment very great. Prof. FLINT also recommends strongly the alcoholic treatment in cases in which stimulants are well borne. M. FURTER recommends strongly diluted alcohol with raw mutton or beef (F. 435, 436). Wine may be given in the form of enema; it should be diluted with water, and care taken not to overload the bowels.

*Ammonii Iodidum* is recommended in incipient phthisis, by Dr. RICHARDSON. It is also advised by Dr. TANNER, in cases in which cod-liver oil is not tolerated (F. 453).

\**Arsenicum* is often a remedy of great value, but it is frequently badly borne by the stomach. Prof. DA COSTA recommends it as often beneficial in slow consumption (F. 430, 431). It is highly advocated by a number of French physicians (pp. 177, 181).

*Calcii Iodidum* has been recommended (p. 181).

*Calceis aqua* and milk is highly spoken of, by Dr. T. K. CHAMBERS and others, as an ordinary beverage in phthisis.

*Cetraria* has been much praised, not only as a nutrient, but as an expectorant, in consumption.

*Cimicifuga* has considerable reputation in the treatment of phthisis, but Prof. STILLÉ considers the cases reported as benefited as probably chronic bronchial affections.

*Cinchona.* The acidulated cold infusion of bark is an excellent remedy for the profuse perspiration, night sweat and hectic fever.

*Digitalin* has been recommended, but no decided results have been reported.

*Digitalis* enjoyed formerly a higher reputation than it now possesses, although it is still highly spoken of. Dr. NIEMEYER considers it, in combination with quinine, as an admirable agent for arresting the abnormal calorification. (F. 448). It is often very useful in hæmoptysis, especially in the advanced stages of the disease (F. 398.)

*Ferri Ammonio-sulphas* is useful where, on account of hæmoptysis, an astringent chalybeate is indicated (F. 457).

*Ferri Bromidum* is sometimes prescribed.

\**Ferri Chloridi Tinctura* is regarded by many as decidedly the best form of iron in phthisis (Dr. SYMES THOMPSON, p. 185).

\**Ferri Iodidum*, alone or with cod-liver oil, is an excellent remedy, especially in the early stages of the disease (F. 451, 452).



*Ferri Mistura Composita* is much used in England, in phthisis, especially when much debility and anæmia exist. If, however, it induce headache, nausea, and heat of skin, it must be discontinued.

*Ferri et Potassii Tartras* is often a useful chalybeate in phthisis, as it is easily assimilated, non-astringent, and may be prescribed with alkalies, which are so frequently indicated in this disease, on account of undue acidity of the stomach.

*Ferri Vinum* is highly recommended, especially for children and young persons, given with, or immediately after meals.

\* *Gallicum Acidum* is useful for checking the diarrhœa, excessive expectoration, hemorrhage and profuse perspirations in this disease.

*Glycerine* is said, by Dr. WALSHE, to often agree well when cod-liver oil is unbearable, and then, especially in children, to decidedly increase the weight. It may be given in combination with the syrup of the iodide of iron.

*Hydrogenii Peroxidum* is said to greatly improve digestion in the first stage of phthisis, and aid the action of iron; in the last stage, it unquestionably affords relief to the breathlessness and oppression, acting like an opiate without producing narcotism.

\* *Hypophosphites*. (The principal "alkaline hypophosphites," are those of soda, potash and lime). These remedies were introduced by Dr. J. F. CHURCHILL, of Paris, as *curative* in every stage, but the word *palliative* better designates their action. They are of late less employed, but are still highly recommended by a number of authorities (F. 422, 427, 432, 462). In some cases, when tubercular softening has commenced, they are alleged, by several practitioners, to act prejudicially.

*Iodinium* as an internal remedy, has been almost entirely displaced by cod-liver oil, though the action of the latter has been attributed, in part, to the small quantity of iodine it contains.

\*\* *Morrhœæ Oleum* is deserving of the highest confidence. The earlier it is employed in the disease the better (F. 289, 303, 304, 310). In regard to its mode of action and method of administration, see opinions of Dr. AITKEN (p. 169), of Prof. DA COSTA (p. 174), of Dr. FOSTER (p. 176), of Prof. JACCOUD (p. 178), of Dr. NIEMEYER (p. 182), of Dr. WALSHE (p. 186) and of Dr. C. J. B. WILLIAMS (p. 188). For manner of disguising its taste, see Index of Remedies.

*Muriaticum Acidum*, alone or in combination with other mineral or vegetable tonics, is an important auxiliary to treatment.

*Opium*, by the mouth or enema, is often a valuable palliative in advanced stages of phthisis, to relieve the cough, lessen the expectoration, check diarrhœa, and afford comfort to the patient.

*Oxygen* inhalations seem to possess the power of promoting the digestion of cod-liver oil, and, therefore, often of great service (see Inhalations).

\* *Pancreatic Emulsion*, introduced by Dr. HORACE DOBELL (p. 110), is an excellent remedy, either with or without cod-liver oil, and is well borne by persons unable to retain the oil. For method of administration (see p. 175).

\* *Pancreatine*, introduced by Dr. HORACE DOBELL, is highly recommended (p. 175).

*Phosphorus* has been employed, but possesses no special value.

*Plumbi Acetas* is very useful in diminishing expectoration, checking hemorrhage and diarrhœa, and to a less extent, the profuse perspirations of phthisis, but its administration is objectionable, because of the anorexia which often speedily results.



*Potassii Chloras* is recommended in the painful deglutition of advanced phthisis (F. 449).

*Potassæ Liquor* is sometimes prescribed (F. 458).

*Potassii Iodidum* is of value, given with iron and cod-liver oil, when there is a syphilitic taint.

*Prunus Virginiana* improves the appetite and palliates the cough.

*Quiniæ Sulphas* is a valuable tonic in phthisis, given in conjunction with iron and cod-liver oil.

*Saccharum*. Dr. SYMONDS recommends (*British Medical Journal*, June 13th, 1868) sugar as an article of diet in phthisis, taken to the extent of a quarter of a pound or more daily. He regards it, with eggs, a succedaneum for cod-liver oil, when the latter disagrees.

*Sanguinaria* has been advised in protracted catarrhal affections assuming the character of incipient phthisis. Small doses of the tincture should be given for several weeks.

*Serum Præparatum*. Suet is a popular and useful remedy, boiled in milk, and taken in the morning.

*Sodii Chloridum* has been recommended, but has probably no direct influence on the disease when fully developed. It is useful in hæmoptysis.

*Sodii Sulpho-carbolas* has been recommended by Dr. SANSOM (*Practitioner*, July, 1869).

*Sulphur* is useful in the costiveness of phthisis, and may also be employed against profuse perspirations.

*Taraxacum* is often serviceable, from its power of diminishing abdominal plethora.

*Zinci Oxidum* is strongly recommended, by Dr. WARING CURRAN, as steadying the nervous system and acting as a general sedative (F. 419).

#### INHALATIONS.

*Arsenicum*. TROUSSEAU and others have recommended arsenious fumigation by means of cigarettes—a mode of treatment which should be conducted with caution.

*Carbolicum Acidum*. Dr. MARCET recommends (*Practitioner*, November, 1868) the atomization of the following solution:—

464. R. Acidi carbolici, gr. ss—iss  
Aquæ, f. ℥j. M.

This inhaled in the form of spray acts beneficially in the first stages of the disease, by improving the circulation in the lungs, but in the advanced stages it should be withheld.

*Chloroformum*. A few whiffs (℥vj—x) are often useful in the cough and dyspnoea of phthisis, but the effect is only temporary.

\**Iodinium*. In cases of troublesome cough and abundant expectoration, benefit sometimes results from employing, night and morning, vapor iodine.

465. R. Tincturæ iodinii, f. ℥j  
Aquæ, f. ℥j. M.

Apply gentle heat, and let the vapor that arises be inhaled. Or, the dilute compound tincture of iodine may be atomized.

*Iodoformum*. The inhalation of the dilute vapor obtained by mixing iodoform with starch, spreading it on paper and allowing it to volatilize, has been recommended.



*Opium*, by inhalation, is an excellent means of soothing irritative cough.

*Oxygen* inhalations can only be looked upon as palliative, and seem, in some cases, after affording immediate relief, to invite fresh and more intense exacerbations.

*Pix Liquida*. Tar vapor is now little used, having lost the reputation it once enjoyed in phthisis.

# EXTERNAL REMEDIES.

*Aceticum Acidum Dilutum*. The application of diluted vinegar to the chest and upper part of the body, to allay the profuse perspirations of phthisis, is recommended by Dr. WALSHE, Sir C. SCUDAMORE, and others, as a measure greatly conducing to the comfort and well-being of the patient. The mixture of one part of vinegar, one of eau de cologne, and two of water, is employed by Sir C. SCUDAMORE.

*Ammonii Iodidum*, in ointment, is recommended by Dr. TANNER (F. 319).

*Baths*. The *Turkish Bath* is sometimes of service in incipient phthisis. The *Compressed Air Bath* may often be employed with great advantage.

*Cod-liver Oil* embrocations may be employed when the stomach will not tolerate the oil (F. 320, 321).

*Counter-irritation*. The counter-irritants most frequently resorted to in phthisis are the following: *Aqua ammoniæ*; *Tartar Emetic Ointment*; *Calomel and Iodine Ointment* (F. 283); *Croton-oil Liniment*. \**Tincture of Iodine* (painted over the chest every night) also does good, by the iodine which is inhaled, from the air around the patient being slightly impregnated by the evaporation of the tincture; *Burgundy Pitch Plaster*; the following plaster is recommended by Dr. BARLOW, in the first stage of phthisis:—

466.	R.	Emplastri picis com.,	ʒiiss	
		Antimonii et potassæ tartratis,	gr.x.	M.

Make a plaster.

*Setons* (in the early stages a sub-clavicular seton of three or four silk threads sometimes retards the progress of the disease).

# THE ANÆMIA OF.

*Ferri Iodidum* is one of the best chalybeate tonics which can be employed in the anæmia of phthisis, if it do not prove too stimulating. The syrup (℞xx-f.ʒj, thrice daily) is the best form.

# THE APHTHÆ OF.

*Catechu*. The infusion makes an excellent gargle in aphthæ occurring in the advanced stages of phthisis.

*Potassii Chloras*, with morphia, glycerin, and syrup, is recommended for redness of the tongue, etc.

\**Sodii Biboras*. Sir T. WATSON recommends the mel boracis.

# THE CONSTIPATION OF.

*Ferri Chloridi Tinctura* sometimes relieves constipation in phthisis, by giving tone to the feeble muscular fibres of the bowels.

\**Podophyllin* often gives better results than any other purgative.



## THE COUGH AND EXPECTORATION OF.

*Aniseed.* The infusion of aniseed (ʒij-iv of the bruised seeds in Oss of water, at 120°, to stand until cool) has considerable power in allaying the irritation on which the cough of phthisis depends. Sir T. WATSON recommends it as a vehicle for paregoric.

*Codeia* has been given with benefit.

*Conium Inhalations* often greatly relieve the cough.

\**Gallicum Acidum* is frequently useful for arresting excessive expectoration.

\**Hydrocyanicum Acidum Dilutum* is a valuable addition to cough mixtures, particularly when there is much irritation.

*Hyoscyamus.* Inhalation of the vapor of henbane (gr. iv-vj of the extract in Oj of boiling water) often affords great relief to the cough and dyspnœa.

*Lactuca.* The extract has been employed as a sedative.

*Morphia and Opium* are frequent additions to cough mixtures in phthisis (F. 291, 292, 295, 298.)

*Plumbi Acetas* is of service in diminishing excessive expectoration.

*Potassii Cyanidum* is frequently prescribed for the cough of phthisis, by Prof. DA COSTA (F. 295).

*Prunus Virginiana* is an admirable calment.

*Tannicum Acidum.* Dr. RINGER strongly recommends the application of the glycerine of tannin, with a small quantity of morphia added, to the throat; when the cough is troublesome, a good night's rest may often be obtained by applying it at bedtime.

*Dry Cupping* on the chest, under the clavicles, often gives great relief in distressing dyspnœa and cough.

## THE DIARRHŒA OF.

*Argenti Nitras*, in doses of gr. j three or four times daily, is regarded by Dr. GRAVES as one of the best remedies in the diarrhœa of phthisis.

*Bismuthi Subnitras*, in doses of gr. v three or four times daily, has been recommended.

*Calcis Carbolas*, in doses of gr. j, combined with hyoscyamus, is recommended by Dr. HABERSHON (*Lancet*, January 4th, 1868), when there is evidence of fermentive changes in the colon.

\**Cupri Sulphas* is recommended by Sir. T. WATSON, combined as follows:—

467. R.	Cupri sulphatis,		
	Pulveris opii,	āā	gr. ¼. M.

For one pill.

*Ferri Chloridi Tinctura* is often very useful (F. 300).

\**Gallicum Acidum* is an excellent remedy, alone or combined with sulphuric acid.

\**Hæmatoxyli Lignum* is recommended by Dr. F. W. PARRY, in the following combination:—

468. R.	Extracti hæmatoxyli,	ʒij	
	Misturæ cretæ,	ʒxij	
	Vini ipecacuanhæ,	f ʒij	
	Vini opii,	f ʒj.	M.

A tablespoonful twice, thrice, or oftener daily.

*Hydrargyrum cum Cretâ*, in half-grain doses, is sometimes effectual in checking the discharge.



*Nitricum Acidum* is recommended by Dr. BARLOW, in the following formula:—

469. R.	Acidi nitrici diluti,	m <sub>xij</sub>	
	Tincturæ opii,	m <sub>v-x</sub>	
	Syrupi,	f.3j	
	Aquæ cinnamomi,	f.3x.	M.

Make a draught, to be taken every fourth or sixth hour.

\**Opium*, alone, or in combination with acetate of lead, with sulphuric acid, etc., is a most valuable remedy in the diarrhœa of phthisis.

\**Plumbi Acetas*, in combination with opium, sometimes succeeds after the failure of stronger direct astringents.

\**Rheum* is sometimes useful. Its astringency is said to be increased, and its purgative power diminished, by *roasting* (in an iron crucible, until it loses two-thirds of its weight); then, given in doses of gr.v-x, it is highly recommended as giving better results than chalk or opium.

*Oleum Ricini* is serviceable in those cases in which the diarrhœa seems to be excited by irritating matters in the intestinal canal. Dr. BARLOW, in such cases, prescribes the following:—

470. R.	Olei ricini,		
	Tincturæ rhei,	āā	f.3ij
	Tincturæ opii,		m <sub>iv</sub>
	Aquæ cinnamomi,		f.3iv.
			M.

To be taken at a draught.

\**Sulphuricum Acidum Dilutum* is often very useful. It may be combined with opium (m<sub>xv-xx</sub>, with tincture opii m<sub>x-xx</sub>), or, as advised by Dr. GRAVES, with henbane.

*Tormentillæ Radix* is said to be particularly useful in the diarrhœa of phthisis.

*Zinci Oxidum* is highly praised by Dr. WARING CURRAN, in combination with conium.

#### THE DYSPEPSIA OF.

\**Hydrocyanicum Acidum* is found, by Dr. WILSON FOX, to be, in the irritative dyspepsia of phthisis, the most efficacious remedy, in combination with carbonate of potash or soda, and infusion of columbo, two or three times a day, between meals.

#### THE DYSPNŒA OF.

\**Chloroformum*. A few whiffs often afford signal relief.

*Croton Oil* liniment to the chest is frequently useful in distressing dyspnœa.

*Hyoscyamus*, in vapor (gr. iv-vj of extract, to Oj of boiling water), is sometimes prescribed, with benefit.

*Stramonium* gives great relief (gr. ¼-j, daily, of the extract), when the dyspnœa is constant.

*Dry Cupping* under the clavicles is frequently useful.

#### THE HEMORRHAGE OF.

See Hæmoptysis.

#### THE NEURALGIA OF.

*Ammonii Chloridum* is highly recommended by Dr ANSTIE, in the intercostal neuralgia of phthical patients.

*Zinci Oxidum* is said, by Dr. WARING CURRAN, to act, in combination with conium, as a sedative to the wandering pains of phthisis (F. 294).



## THE PROFUSE PERSPIRATIONS OF.

*Aceticum Acidum Dilutum*, alone, or with cologne water (1 part of vinegar, 1 of eau de cologne and 2 of water), affords great comfort, sponged over the chest and upper part of the body.

*Apiol* has been recommended in the night sweats of phthisis.

*Ferri Chloridi Tinctura* often lessens the night sweats of phthisis, particularly if the oxide of zinc be also given.

*Gallicum Acidum*, alone or with sulphuric acid, proves very effectual.

*Ipecacuanha*. Dr. GRAVES says that a few grains of Dover's powder at bedtime will often put a stop to the profuse perspirations. He observes, it is hard to account for this, but it is a fact.

\**Kino*. Sir T. Watson recommends pulv. kino co. as having much power over the perspirations. It has the further advantage that (containing opium) it tends to control the diarrhœa and check the cough.

*Plumbi Acetas* has a certain influence over the profuse perspirations, but less than it possesses over the diarrhœa and hemorrhage of phthisis.

*Sulphuricum Acidum Dilutum* has, according to Dr. R. CHRISTISON, no equal in the profuse perspirations of phthisis.

*Tannicum Acidum* is often very effectual when given with quinine, or with nitric acid.

*Zinci Oxidum* is frequently highly useful.

*Zinci Sulphas* is very highly praised by Dr. BARLOW in the night sweats of phthisis. He employs the following formula:—

471. R.	Zinci sulphatis,	gr.j	
	Extracti hyoscyami,	gr.iv.	M.

• For one pill.

## THE VOMITING OF.

*Nux Vomica*. The tincture (m<sub>x</sub>) will often, according to Dr. DOUGLASS POWELL (*Practitioner*, November, 1868), arrest the vomiting of phthisis, and in some cases, where there is little catarrh, *strychnia* is efficient for this purpose.

## THE PREVENTIVES OF.

*Aceticum Acidum Dilutum* is praised by Dr. GRAVES as a preventive of phthisis. The chest should be washed daily with vinegar and water, beginning with it tepid, and gradually reducing the temperature, until it can be employed completely cold.

*Ferrum*. The experiments of M. COSTER upon the efficacy of iron in preventing the development of tubercular disease are important. A number of dogs and rabbits were placed in circumstances generally supposed to be the most favorable to the development of scrofula and tubercular disease, namely, cold damp cellars without light, where they were prevented from moving, and exposed to a most unwholesome atmosphere. Those fed upon ordinary food, became, with one or two exceptions, tuberculous; whilst not one fed upon ferruginous bread (containing half an ounce of the sesquioxide of iron in each pound of bread), presented even a trace of tubercles. But, as Dr. SYMES THOMPSON remarks, iron cannot be rapidly assimilated in large quantities by feeble persons, but must be taken, like food, hour by hour, day by day, and year by year, till the blood is no longer poor, the tissues no longer short-lived and unresistant, and until the "tubercular dyscrasia" is overcome.



## PLEURISY, ACUTE.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

In acute pleurisy, during the first stage, or that of *hyperæmia*, the best practitioners of all times and of all countries have taken blood from the arm, provided the strength be good and the symptoms sthenic. If, says LÆNNEC, after one or two bleedings the pain in the side and fever have not abated, blood should be taken from the side by leeches or cupping. The practitioner should also remember that effusion often takes place after the bleeding, during the subsidence of the inflammation, so that the breathing is often more oppressed, and the symptoms for a time aggravated, although the condition of the patient is in reality improved. The lung, however, soon gets accustomed to this new state of things; and the fluid in a few hours beginning to be absorbed, the symptoms are generally ameliorated. The patient should be bled in an upright posture, in a full stream, until he can take a deep breath freely, or faints—from ten to twenty ounces.

*Hot poultices* and *leeches* should always be employed when pain on inspiration is present, of a “catching” or “stabbing” nature.

*Tartar emetic*, says LÆNNEC, is, in general, well supported in pleurisy, and contributes powerfully to subdue the inflammatory tendency; but, nevertheless, when the pain in the side and fever have ceased, it loses further power over the disease; at least, it does not appear to promote the removal of the fluid effused, so that its use must generally be abandoned as soon as the acute symptoms have passed away.

*Blisters* are not to be used until the acute stage is past; but when the pain has ceased for some days, and absorption proceeds slowly, and the disease promises to become chronic, a succession of blisters may be applied.

After free evacuation of the bowels has been effected, *calomel*, to the extent of producing the *slightest* mercurialization, is the most beneficial line of treatment in certain cases *only*—those which do not acknowledge any *constitutional diseases* as their cause. The more rapidly slight mercurialization can be produced the better; hence the following prescriptions are useful:—



472. R. Hydrargyri chloridi mitis, gr.xviii  
 Pulveris opii, gr.ij  
 Syrupi, q. s. M.

Divide into 12 pills. Take one every half-hour, until all are taken. At the same time rub *mercurial ointment* into the skin of the affected side, near the axilla, every fourth hour. The amount of opium may be increased if the pain is very acute.

Or,

473. R. Hydrargyri chloridi mitis, gr.xij-xxiv  
 Pulveris digitalis, gr.vj  
 Pulveris opii, gr.vj-xij  
 Syrupi, q. s. M.

Divide into 12 pills. One to be taken every three or four hours, and the whole side to be covered with a piece of linen spread with *mercurial ointment*, over which is to be placed a poultice covered with oil silk.

The patient must be carefully watched that neither *ptyalism* nor *narcotism* be produced. The moment mercurial action has been established, the further administration of the mineral must cease.

Opium and digitalis are advised to be continued after the use of calomel has been suspended. With these may be given two grains of *squills* or of *nitrate of potassium*, which will act beneficially as a diuretic. After twelve or more hours very small quantities of *tartar emetic* in solution may be given at night, combined with small doses of *opium* and *ipecacuanha*, to allay the cough and general irritation.

After the febrile action has in some measure subsided, and the active stage of the disease is at an end, a *blister* may be applied over the lateral region of the chest, but not over the seat of pain; and if the fluid continues to accumulate, the blisters ought to be repeated, so as to maintain a surface at a distance from the affected part in a constant state of counter-irritation. Diuretics ought, at the same time, to be given freely. The *compound tincture of iodine*, in doses of *twenty minims*, *freely diluted*, is a valuable medicine at this juncture.

PROF. ROBERTS BARTHOLOW, M. D., CINCINNATI, OHIO.

474. R. Morphiae sulphatis, gr.xvj  
 Aquæ destillatæ, f.ʒj. M.

Dissolve and filter. Dose, for a hypodermic injection, five to ten minims.

Nothing can be more satisfactory than the treatment of pleurisy in its early stage by the hypodermic injection of morphia. It re-



lieves at once the pain, and arrests or diminishes the morbid process.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

- |         |                           |          |    |
|---------|---------------------------|----------|----|
| 475. R. | Potassii acetatis,        | gr.xv    |    |
|         | Spiritus ætheris nitrosi, | f.℥ss    |    |
|         | Vini ipecacuanhæ,         | gtt.iiij |    |
|         | Syrupi tolutani,          | f.℥ss.   | M. |

For one dose, four times a day. Useful in subacute pleurisy.

- |         |                             |         |    |
|---------|-----------------------------|---------|----|
| 476. R. | Tincturæ veratri viridi,    | ℥xxiv   |    |
|         | Potassii acetatis,          | ℥ss     |    |
|         | Morphiæ acetatis,           | gr.ss   |    |
|         | Liquoris potassii citratis, | f.℥ijss |    |
|         | Syrupi tolutani,            | f.℥ss.  | M. |

A dessertspoonful every three hours in dry pleurisy.

Locally, apply, two or three times a day, turpentine stupes.

### RÉSUMÉ OF REMEDIES.

*Antimonii et Potassii Tartras*, in doses gr. $\frac{1}{16}$ — $\frac{1}{4}$ , sometimes proves useful in the earliest stages of acute pleurisy in young, plethoric subjects.

*Digitalis* is recommended by Dr. AITKEN (F. 473).

*Hydrargyrum*. Mercury in pleurisy is objected to by the majority of modern practitioners. It is contra-indicated if there be any organic disease of the kidneys (F. 473).

\**Morphia*, hypodermically, gives the most satisfactory results in the early stage of pleurisy (F. 474).

\**Opium* is very desirable in many cases, relieving pain and procuring sleep.

*Veratrum Viride* is frequently employed with benefit (F. 476).

*Blood-letting*. Venesection is rarely resorted to. The local abstraction of blood by \**leeches* is often of great service.

*Diuretics* are useful after the febrile action has subsided.

*Stimulants* are sometimes indicated. Dr. ANSTIE relates a case successfully treated by stimulants, the only other remedy given being morphia in large doses.

### EXTERNAL REMEDIES.

*Cantharis*. *Blisters* are rarely productive of benefit in the early stages. But after the pain and febrile action have subsided, and especially after effusion has taken place, they are of great advantage.

*Turpentine* stupes may be resorted to at a far earlier period than blisters, and in addition to relieving the pain, they seem to aid in arresting the inflammatory action.

\**Poultices*. The prolonged use of light, soft, hot linseed poultices, large enough to cover the whole side, is of great benefit. Mercurial ointment may sometimes be applied under the poultice.



## PLEURISY, CHRONIC.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

477. R. Pulveris digitalis,  
 Pulveris scillæ,  
 Pilulæ hydrargyri, āā gr.iss. M.

For one pill, two or three times a day, as a diuretic in chronic pleuritic effusion.

Also,

478. R. Hydrargyri chloridi corrosivi, gr.iv  
 Tincturæ iodinii compositæ, f.ʒiv-vj  
 Glycerinæ, f.ʒiiij  
 Aquæ destillatæ, f.ʒivss. M.

For a lotion, to be applied over the chest by spongeo-piline, or by lint covered with oiled silk.

One or other of the following ointments may also be rubbed in upon the skin, over the side of the chest, namely :—

479. R. Hydrargyri chloridi corrosivi, gr.iv-v  
 Unguenti iodinii compositæ, ʒiv-vj  
 Adipis, ʒiv-ʒj. M.

Or,

480. R. Hydrargyri chloridi corrosivi, gr.iv-v  
 Potassii iodidi, ʒij  
 Aquæ destillatæ, q. s. to make solution.  
 Adipis, ʒj. M.

Make an ointment.

DR. CRUVEILHIER, FRANCE.

481. R. Tincturæ aloës, f.ʒj-ij  
 Tincturæ scillæ,  
 Tincturæ digitalis, āā gtt.xx. M.

To be taken every two or three days, in the morning, on an empty stomach, in a small glass of a diuretic infusion. Used in chronic pleurisy with effusion. Flying blisters on the chest.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

482. R. Potassii iodidi, ʒj  
 Extracti pruni virginianæ fluidi, f.ʒj  
 Spiritus juniperis compositi, f.ʒiiij. M.

A tablespoonful thrice daily.

483. R. Potassii acetatis, ʒj  
 Tincturæ digitalis, f.ʒij  
 Extracti cinchonæ fluidi, f.ʒj  
 Aquæ, f.ʒij. M.

A teaspoonful thrice daily, in pleuritic effusions.



484. R. Potassii iodidi, ʒij  
 Tincturæ scillæ, f.ʒvj  
 Tincturæ opii camphoratæ, f.ʒiss  
 Misturæ acaciæ, f.ʒvj. M.

A teaspoonful four times a day, in chronic pleurisy with consolidation of the lung. Also, a good nourishing diet; either whisky or gin, half an ounce three times a day; and counter-irritation by means of tincture of iodine.

Afterward, when effusion has begun to disappear, the following tonic diuretic may be ordered:—

485. R. Tincturæ ferri chloridi, f.ʒj  
 Acidi acetici, f.ʒj. M.

And add:—

486. R. Liquoris ammonii acetatis, f.ʒv  
 Syrupi aurantii corticis, f.ʒij. M.

A dessertspoonful increased to a tablespoonful, thrice daily.

487. R. Potassii iodidi, ʒiv  
 Potassii acetatis, ʒss  
 Elixiris cinchonæ, f.ʒij  
 Curaçao, f.ʒj. M.

A dessertspoonful thrice daily, in pleuritic effusion, with roughening above effusion. Also a blister and an occasional cathartic.

#### NÉLIGAN.

488. R. Iodinii, ʒijss  
 Potassii iodidi, ʒj  
 Camphoræ, ʒss  
 Alcoholis, f.ʒij. M.

Dissolve successively, in the alcohol, the iodine, the iodide and the camphor. A counter-irritant liniment, to be employed in pleurisy with effusion, with caution, however, on account of its energetic vesicant powers. Useful when the action upon the kidneys of a cantharidal vesicant is feared.

#### THOMAS HAWKES TANNER, M. D., LONDON.

489. R. Pilulæ hydrargyri, gr.ijj  
 Pulveris digitalis, gr.ss  
 Pulveris scillæ, gr.iss. M.

For one pill. To be taken as an alterative and diuretic, two or three times a day. (The dose in this pill differs somewhat from the same combination given by Dr. AITKEN. F. 339).

Very often, however, mercury in any shape does harm. Then the compound tincture of iodine, the iodide of iron, or cod-liver oil, is much more likely to be useful.

The patient ought to be kept on a moderate diet, free from stimulants. A series of flying blisters may be applied. Purgatives as well as diuretics should be administered.



CHARLES WEST, M. D., LONDON.

490. R.	Potassii iodidi,	gr. xij	
	Potassii nitratis,	gr. xxx	
	Spiritus ætheris nitrosi,	f. ʒj	
	Tincturæ scillæ,	℥. xxx	
	Tincturæ digitalis,	℥. xxiv	
	Syrupi aurantii corticis,	f. ʒss	
	Aquam,	ad. f. ʒiv.	M.

Tablespoonful every four hours, for a child six years old.

Employed in the treatment of pleuritic effusion, and continued steadily for several days. Its action may be seconded by a small dose of mercury given once or twice a day, as one grain of calomel, or three of gray powder. The mercury may be discontinued at the end of a week, but the iodide of potassium may be persevered with for two or three weeks.

### RÉSUMÉ OF REMEDIES.

*Digitalis* is sometimes given, combined with squill and mercury, in chronic pleuritic effusion (F. 339, 349).

*Hydrargyrum*. Blue pill is sometimes useful, combined with digitalis and squill (F. 279, 249).

*Oleum Morrhuæ*, conjoined with iron and tonic regimen, is of benefit in pleuritic effusions associated with debility.

*Potassii Acetas* is, in some cases, prescribed by Prof. DA COSTA (F. 483).

*Potassii Iodidum*, variously combined according to indications, is of the highest value in restraining inflammatory action and promoting absorption (F. 343, 345, 348, 350).

*Quinæ Sulphas*, in the advanced stages, when the case assumes a typhoid character, especially when the patient is old or debilitated, is of great service.

*Scilla* is sometimes given, combined with digitalis and mercury (F. 239, 249).

*Diuretics* are, of course, indicated in chronic pleuritic effusions. The principal drugs employed are *Digitalis*, combined with squills and mercury (F. 239, 249), with acetate of potash (344), or with iodide of potassium (F. 350); *Ferri Chloridi Tinctura* (F. 346); *Potassæ Acetas* (F. 337, 344, 348); *Potassæ Nitras* (p. 130); *Scilla* (F. 339, 345, 349).

### EXTERNAL REMEDIES.

*Cantharis Blisters* may be employed with manifest advantage.

*Counter-irritants* are of service. The principal employed are *Aqua Ammoniæ*; *Hydrargyri Chloridum Corrosivum*, combined with iodine (F. 340, 341, 342); \**Tincture of Iodine*.



## PNEUMONIA.

PROF. WILLIAM AITKEN, M. D., EDINBURGH.

491. R. Antimonii et potassii tartratis, gr. iij-xij  
Hydrargyri chloridi mitis, gr. xij. M.

For 12 pills. One to be given every five or six hours, according to the severity of the disease.

This combination is believed to have saved a much larger number of cases than antimony alone. It is to be adopted in some cases. The bowels should be well cleaned out before resorting to it. So soon as the gums are touched, the prescription should be discontinued.

PROF. BOUCHUT, PARIS.

492. R. Veratriæ,  
Pulveris opii, āā gr. iss  
Pulveris ipecacuanhæ, gr. iij  
Syrupi, q. s. M.

For 20 pills. From one to five to be taken during the day.

PROF. HARVEY L. BYRD, M. D., BALTIMORE.

493. R. Potassii bromidi, ʒj.

Make 12 powders. One powder every two hours, and between each dose, as long as necessary to keep down activity in the circulation, two drops of Flemming's tincture of aconite.

PROF. J. M. DA COSTA, M. D., PHILADELPHIA.

494. R. Potassii iodidi, ʒiv  
Tincturæ cinchonix compositæ, f. ʒiv. M.

A dessertspoonful thrice daily, in subacute pneumonia with pleurisy.

Also,

357. R. Emplastri cantharidis, 4x5 in.

To be followed by a poultice and dressed with basilicon ointment.

PROF. FELIX VON NIEMEYER, M. D., TÜBINGEN.

495. R. Quiniæ sulphatis, ʒj.

For 10 pills. One every two hours.

According to experiments of our author in the administration of quinine in this disease, it is called for when there is great danger, arising chiefly or entirely from excessive elevation of the temperature of the body. It may then be given as above, or in two or three ten-grain doses within a few hours.



JOHN POPHAM, M. D., CORK.

496. R. Potassii bicarbonatis, 3j-vj  
 Misturæ acaciæ, f. 3iij. M.

A dessertspoonful in water, four, six or eight times in the twenty-four hours.

The evidence of the good effects of this alkaline treatment appears on the second or third day (*British Medical Journal*, December 28th, 1869). It acts as a sedative by allaying the cough and abating the state of congestion on which it depends. A blister applied for four or six hours, but not for suppuration, is a valuable auxiliary. Suppuration from blistering is exhaustive and prejudicial.

A. T. H. WATERS, M. D., LONDON.

Our author is opposed to the prolonged administration of *tartar emetic* in small doses. There are very few cases that are not injured by such a practice, and whenever the dose produces a depressing effect, or whenever it gives rise to sickness or purging, it does harm, and should not be persevered with. At the same time, there can be no doubt that large doses (gr. j-ij) may be safely given in some cases, and continued even for days, without producing its physiological effects—vomiting, purging, etc., and in such instances the antimony appears to do good; the symptoms of the pneumonia yield during its administration, and convalescence becomes established. But whilst these full doses of tartar emetic are well borne by some patients, it is doubtful whether it is ever desirable to exhibit them, for I believe we can get all the good effects which the drug is capable of affording, by using it in smaller quantities. The treatment employed by Dr. W., with a loss of only one case in forty-four, consisted mainly (apart from the occasional use of antimony, as above) of *carbonate of ammonia*, combined with *chloroform* (F. 501), *chloric ether*, *opium*, a generous, nutritious diet, beef tea, milk, etc., with the judicious use of *alcoholic stimulants* from an early period. *Turpentine stupes*, *sinapisms*, and *linseed meal poultices* were employed in the early stages of the disease, and *blisters* in the more advanced.

Dr. W. considers that too high a value has been placed upon *mercury* as a remedy in the stage of hepatization, for which it has been considered peculiarly applicable. He finds that in these cases it possesses no special properties for promoting absorption of



the effused matters. As a purgative, it is very useful, as it tends to relieve the portal system, often overloaded in pneumonic inflammation; but if given in frequent doses, or with the view of producing salivation, its effects, save in a few exceptional cases, will be more or less prejudicial. It was only administered in one of the above-mentioned forty-four cases, and then it in nowise hastened, in the opinion of Dr. W., the recovery.

*Opium* is very desirable in many cases, often relieving pain, allaying the distressing cough, and procuring sleep. The pain in the side which so frequently accompanies pneumonia, and for which depletion was formerly prescribed, may generally be relieved by a dose of opium. It is believed of great value in arresting the delirium so apt to supervene in this disease. On the first appearance of the indications of approaching delirium, *e. g.*, want of sleep, restlessness, slight staring of the eyes, and slight tremor of the hands, a few doses of opium, and the exhibition of stimulants and nourishment, may at once arrest the attack. At the same time, all depletory measures should be avoided; the aim should be to improve the nutrition of the brain and give vigor to the circulation, for, when these results are accomplished the delirium will disappear.

Few cases are now met with which are benefited by general *bleeding*, and the abstraction of blood by cupping or leeching is not often necessary.

The pulse affords an excellent indication as to the need for *stimulants*. As a rule, it may be said that when the pulse is below 100 the case is not a grave one, and will yield to treatment of a simple character; but when it rises to 110, 120, and upward, the case is more serious. *The more frequent the pulse, the greater is the need for stimulants*, and it is very remarkable to see the effect they produce on the pulse when it is abnormally frequent, in some cases of pneumonia. Intermission of the pulse is an invariable indication for the free use of stimulants. In the pneumonia of aged people stimulants may be given without hesitation.

#### GERMAN HOSPITAL, PHILADELPHIA.

497. R.	Extracti cinchonæ, Moschii, Syrupi aurantii corticis, Aquæ aurantii florum,	℥j gr. vj f. ℥j f. ℥iij.	M
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By tablespoonful doses in pneumonia with adynamic symptoms.



498. R. *Ammoniæ acetatis*, ʒijss  
*Extracti cinchonæ*, ʒss  
*Tincturæ canellæ*, f.ʒiss  
*Syrupi aurantii corticis*, f.ʒj  
*Aquæ menthæ piperitæ*, f.ʒiv. M.

By tablespoonful doses, from hour to hour, in adynamic pneumonia.

499. R. *Ipecacuanhæ*, gr.xv  
*Antimonii oxy-sulphureti*, gr.vij  
*Camphoræ pulveris*, gr.xv  
*Sacchari lactis*, ʒijss. M.

Divide into 10 powders. One powder every two hours, in adynamic pneumonia.

500. R. *Antimonii oxy-sulphureti*, gr.ij  
*Camphoræ pulveris*, gr.v  
*Sacchari*, ʒiss. M.

Divide into 12 powders. From four to six a day, to facilitate expectoration.

### RÉSUMÉ OF REMEDIES.

\**Ammonii Carbonas* is recommended, combined with chloroform, by Dr. A. T. H. WATERS, in cases in which antimony is contra-indicated. His formula is,

501. R. *Ammonii carbonatis*, gr.iv  
*Spiritûs chloroformi*, ℥xx  
*Aquæ camphoræ*, f.ʒx. M.

To be given every three or four hours; may be given either with or without alcoholic stimulants.

*Ammonii Chloridum*, combined with ether, is often productive of excellent results in the advanced stages of pneumonia.

*Antimonii et Potassii Tartras* is much less employed in modern therapeutics than formerly. Large and repeated doses are now seldom given, and small doses (gr. $\frac{1}{16}$ - $\frac{1}{4}$ ) only in young, robust subjects, when febrile action is strong, and in the earliest stages of the attack. Very few cases are benefited, or escape injury, from its prolonged administration. Dr. AITKEN has obtained good results by combining it with calomel. For Dr. WATERS' opinion in regard to its use, see p. 204.

*Antimonii Oxy-iodidum* is said to be particularly useful as an alterative and diaphoretic in the second stage of pneumonia.

*Apomorphia* has been favorably reported upon.

*Belladonna* is highly spoken of by Dr. HARLEY, who found that under its use the grave symptoms rapidly subsided, and convalescence was speedily established.

*Camphora* is recommended by Dr. COPLAND, as one of the most valuable remedies in *asthenic* pneumonia, in doses of gr.ij-vij, every four, five, or six hours, combined with calomel and opium, or with antimony and henbane, according to the character of the attack; the latter being preferred when the inflammation approaches the *sthenic* form, in which case the doses of the camphor may be lessened.

*Chloroformum*, by inhalation (8 or 10 drops at a time, three or four times a day), is said to relieve the stitch in the side and palliate the cough and oppression.



*Cinchona.* See *Quiniæ Sulphas*.

*Digitalis* has been much employed of late years. M. RONY-SAUCEROTTE regards it (*Practitioner*, March, 1869) as one of the best means of relieving the febrile and other grave symptoms; less active as an antipyretic than *veratrum*, but more easily managed and less offensive; acting more slowly than leeches, but producing more durable results.

*Hydrargyri Chloridum Mite* was formerly regarded as indispensable, combined with ether, antimony or opium, in the treatment of pneumonia. Although still employed, it is very much less so of late years.

*Ipecacuanha* is sometimes serviceable as an expectorant and diaphoretic, but is not to be trusted to alone, nor continued when it nauseates and prevents the patient from taking nourishment.

*Moschus*, in doses of gr.xxiv-xxx daily, has been recommended when pneumonia assumes a typhoid character, particularly if attended with delirium.

\**Opium* is frequently a valuable remedy in arresting delirium, relieving pain and cough, and inducing sleep.

*Plumbi Acetas* is highly recommended in *asthenic* pneumonia, occurring in debilitated subjects. It may be combined with quinine (gr.j of each every two hours), or, if the cough be very violent, opium may replace the quinine.

*Potassæ Liquor*, in doses of ℥x-xv, added to an ordinary expectorant mixture, is often beneficial in the advanced stages of pneumonia when the sputa is scanty, thick and viscid.

*Potassii Bromidum* is prescribed by Prof. BYRD (F. 493).

\**Potassii Iodidum* is frequently useful, combined according to circumstances, in the advanced stages of pneumonia (F. 494).

*Potassii Nitræs* has been recommended.

\**Quiniæ Sulphas* is of the highest value in *asthenic* pneumonia, and in the advanced stages of pneumonic inflammation of the old and debilitated. Under the administration of gr.v every third hour, the pulse becomes slow and steady, and the respiration free. If the patient be young, with evidences of capillary congestion generally over the system, local depletion should precede its use. Dr. Niemeyer recommends quinine (F. 495) when there is great danger, arising from excessive elevation of the temperature of the body.

*Sanguinaria* is recommended in *typhoid* pneumonia, when respiration is very difficult, the extremities livid, and the pulse full, soft and compressible. The dose should be large in proportion to the violence of the disease, and repeated until it excites vomiting or relieves symptoms.

\**Senega*, in decoction, is recommended by Dr. C. J. B. WILLIAMS, when the inflammatory symptoms have subsided, and any amount of debility, with weak pulse, cool skin, cough, and dyspnoea remains. Cases which have resisted other remedies, often almost immediately improve by its use, the pulse becoming slower, the breathing freer, the tongue cleaner, and the strength greater.

*Serpentaria* is productive of good results in typhoid pneumonia.

*Valeriana*. The ammoniated tincture, combined with camphor, is sometimes employed in the advanced stages of pneumonia, but is inferior to musk.

*Veratria* has been employed with great advantage. It may be given in pills (F. 492), or in solution (if the stomach be irritable, with an effervescing draught). Prof. Vogt, of Berne, commences with gr. ʒss, every two or three hours, until it produces vomiting or diminution of the pulse.



\**Veratrum Viride* is much employed in pneumonia. The plan recommended by Dr. NORWOOD, is to begin with gtt.viii of the tincture every third hour, and add one drop to each successive dose, until the pulse is sufficiently reduced or nausea supervenes; the subsequent doses are then to be regulated so as to sustain the depressed state of the circulation, with as little disturbance of the stomach as possible, any excess of nausea being controlled by a little morphia. With the reduction of the pulse the inflammatory symptoms decline and convalescence ensues. Many physicians have reported very favorably upon this remedy.

*Alkalies* often prove useful in the advanced stages, when the expectoration is thick and viscid (F. 496).

*Blood-letting.* Venesection is seldom employed in pneumonia. Local bleeding, by cupping or leeching, often affords great relief to the pain, but most practitioners prefer to seek this relief by opium.

\**Stimulants* are often indicated, particularly in cases of very frequent pulse, and in aged people.

#### EXTERNAL REMEDIES.

*Blisters* are not beneficial in the early, but are useful in the advanced, stages of pneumonia.

*Counter-irritants* may be employed in the early stages of the disease. The principal applications employed are *tartar-emetic ointment*; *croton oil*; \**tincture of iodine*; \**turpentine stupes*.

*Poultices* are especially useful in the early stages of the inflammation. Flax-seed poultices, made so as to envelope the whole chest, give great relief, and exercise a salutary influence on the inflammatory action.

#### PNEUMONIA, CHRONIC.

*Lobelia* often proves useful in chronic pneumonia.

*Sanguinaria* has been found to be of essential benefit in some cases.

*Sumbul Radix* is employed by Russian physicians.

For the treatment of the pneumonia of children and infants, see Diseases of Children, Section VIII.



### III. DISEASES OF THE CIRCULATORY SYSTEM.

*Angina Pectoris—Cardiac Dilatation—Cardiac Hypertrophy—Carditis—Fatty Degeneration of the Heart—Functional Palpitation of the Heart—Internal Aneurism—Valvular Disease of the Heart.*

#### ANGINA PECTORIS.

DR. ALFRED L. LOOMIS, NEW YORK.

This author states that the only remedies he has found of service in delaying and rendering less severe the paroxysms of this disease are iron, strychnine and arsenic, administered daily in small doses. During the paroxysm, rest and free administration of digitalis are of the greatest service. He adds that opiates, chloroform, and nitrite of amyl should not be used.

DR. T. L. BRUNTON, LONDON.

On the other hand, Dr. BRUNTON (*British Medical Journal*, July 13, 1872) highly extols the amyl nitrite, and in the same journal (November 28, 1874) and elsewhere, instances of its great value are given. About two or three drops, used by inhalation, are generally sufficient to afford relief. Fatty degeneration contra-indicates it.

DR. N. GALLOIS, PARIS.

502. R. Tincturæ digitalis,  
Tincturæ belladonnæ,  
Tincturæ valerianæ,  
Spiritus ætheris compositi      āā      f.ʒj.      M.

Dose ten to twenty drops during the access of pain; stimulating frictions over the sternum; and if the attack prolongs itself, hypodermic injections of atropia.

503. R. Quiniæ sulphatis,      gr. xxx  
Acidi arseniosi,      gr. ss  
Extracti valerianæ,      q: s.

Divide into 30 pills. From two to four a day for persons subject to attacks, in order to lessen their frequency.



## RÉSUMÉ OF REMEDIES.

*Acetici Acidum Dilutum.* Bathing the chest every morning with vinegar and water is said to lessen the liability to attacks.

*Amyl Nitrite* (see above).

*Argenti Nitras*, gr. j daily, in the form of a pill, is favorably spoken of by Dr. COPLAND.

\**Arsenic.* Dr. ANSTIE says he has seen the most remarkable relief afforded by this remedy. It may be given in the form of Fowler's solution; in pill of arsenious acid; or (gr.  $\frac{1}{16}$ ) of arseniate of soda, with extract of hop; by subcutaneous injection; or by inhalation of the smoke of arsenical cigarettes.

*Assafoetida*, combined with opium and ether is sometimes of service.

*Camphor*, in combination with opium or hydrocyanic acid, sometimes acts favorably.

*Ether* is praised as a palliative by Dr. ANSTIE, who considers it, however, as inferior to arsenic or strychnia.

\**Morphia*, by hypodermic injection, is highly praised by Prof. BARTHOLOW.

\**Strychnia*, by hypodermic injection (gr.  $\frac{1}{250}$ — $\frac{1}{60}$ ), twice daily for several weeks, is highly lauded by Dr. ANSTIE, who has seen remarkable benefit attending its use in presence of a threatening paroxysm.

*Quiniæ Sulphas* has been advised in intermittent angina pectoris.

*Zinci Sulphas* sometimes proves of great benefit when persevered in during the intermissions.

*Stimulants.* The relief of pain is better accomplished by the use of ether, or of morphia or atropia hypodermically, than by large doses of spirits.

\**Turpentine* stupes, applied to the chest, often mitigate the severity of the paroxysm, particularly in the old and debilitated.

*Issues.* An issue at the nape of the neck sometimes acts favorably in mitigating the symptoms.

## CARDIAC DILATATION.

DR. ALFRED L. LOOMIS, NEW YORK.

The indications are: 1. To maintain nutrition; 2. To avoid violent cardiac action. For the first, our author commends an exclusively milk diet, the fluid taken in small quantities at short intervals. "As a rule, it is always safe to daily administer iron to a patient with dilated heart." Slightly stimulating baths, flannel next the skin, the avoidance of emotion, and the arrest of all exhausting discharges are important. A dry, bracing atmosphere is most suitable. The most important remedy is digitalis, in sufficiently large doses to regulate the heart's action. As it loses its controlling power by continued use, it should not be exhibited indiscriminately.



J. M. DA COSTA, M. D., PHILADELPHIA.

504. R. Pulveris digitalis, gr. v  
 Extracti belladonnæ, gr. j  
 Ferri redacti, ℥ij. M.  
 For xx pills. One thrice daily.
505. R. Emplastri belladonnæ, 4x4.  
 To be worn over the cardiac region.

Belladonna is one of the best agents that can be employed to overcome irregularity of the action of the heart, and to relieve pain. Digitalis is also useful for the same purpose, especially where the action of the heart is feeble; it is the only sedative which will reduce the frequency and not the force of the heart. It may be combined as follows:—

506. R. Ferri lactatis, ʒss  
 Pulveris digitalis, gr. v. M.  
 For xx pills. One thrice daily.

507. R. Tincturæ digitalis, f.ʒss.  
 Ten drops thrice daily, in cases of dropsy caused by cardiac dilatation.

Also,

508. R. Pulveris jalapæ compositus, gr. x.  
 For one dose at night.

In such cases, a tablespoonful of lemon juice, three times a day, acts as a diuretic and stomachic. Baths, also, are advantageous. Dry cups applied to the chest relieve the pulmonary congestion. It is more important to start the secretions and relieve internal congestions than to give tonics and iron, which find their appropriate place in the after-treatment.

DR. FELIX VON NIEMEYER, PROF. UNIVERSITY OF TÜBINGEN.

Our author has convinced himself, by a great number of observations, that digitalis is a very efficient means of extemporarily strengthening the heart's contractile power, and of thus allaying dropsy and cyanosis. In dilatation of the heart, digitalis, combined with an exclusively milk diet, is an invaluable remedy. Dr. von N. has repeatedly succeeded in obtaining complete removal of dropsical effusions of great magnitude and producing considerable temporary relief by this mode of treatment.

Iron, which fortunately no longer has the reputation of being "heating," should always be prescribed when the patient shows any signs of anæmia or hydræmia.



DR. WALSH.

When dropsy appears in cases of dilatation of the heart, the diuretics which yield most relief are the acetate, nitrate, iodide, and bitartrate of potassa, nitrous ether, compound tincture of iodine, the infusion and spirits of juniper, and gin. Hydragogue cathartics, elaterium, gamboge, citrate of potassa and the compound jalap powder, also aid in subduing the dropsical effusion. The following formula is a useful one for the administration of elaterium:

• 509.	R.	Extracti elateri,	gr. $\frac{1}{8}$ -j	
		Extracti creasoti,	gr. ij	
		Extracti hyoscyami,	gr. ij.	M.
For one pill.				

## RÉSUMÉ OF REMEDIES.

\**Belladonna* is prescribed by Prof. DA COSTA to overcome irregularity of the heart's action, and to relieve pain.

\**Digitalis* is recommended in dilatation by Prof. DA COSTA and Professor NIEMEYER (*see above*), Drs. GULL, WILKS, FULLER, HANDFIELD JONES, TROUSSEAU, and others. The conclusions of Dr. W. MURRAY are as follows: 1. That *digitalis* will stimulate and strengthen a weak heart, and that the weaker are the muscular tissues of the heart the safer will be the administration of the medicine. 2. That in hypertrophied heart it will fail to reduce the pulse either in frequency or strength, and in such cases will prove dangerous. 3. That in a weak organ, acting, on account of its weakness, with great rapidity, it will reduce the number of its contractions, and, as it were, strengthen or tone them down. To strengthen and quicken the action of a weak, slowly-acting heart, and to reduce the number of the rapid strokes of a full heart, is, according to ANSTIE, to do the work of a true stimulant; bringing action up to the normal standard on the one hand, and reducing it to that level on the other (*Brit. For. Med.-Chir. Rev.*, July, 1865). Prof. DA COSTA says that *digitalis* is the only remedy which will reduce the frequency and not the force of the heart. Prof. NIEMEYER recommends *digitalis*, combined with an exclusively milk diet, as an invaluable treatment for dilatation.

*Ferrum*, according to Prof. DA COSTA, finds its appropriate place in the after-treatment, the secretions being regulated and the internal congestions relieved. Prof. NIEMEYER says iron should always be prescribed when the patient shows any signs of anæmia or hydræmia.

*Diuretics* are indicated when dropsy appears. Dr. WALSH finds that those which yield the most relief are the acetate, nitrate, iodide, and bitartrate of potassa, nitrous ether, compound tincture of iodine, the infusion and spirits of juniper, and gin.

*Dry Cups* to the chest are often useful to relieve the pulmonary congestion.



## CARDIAC HYPERTROPHY.

ALFRED L. LOOMIS, M. D., NEW YORK.

This author condemns the practice of blood-letting to which the full pulse and symptoms of cerebral hyperæmia have prompted some practitioners in this disease. Of all remedial agents to diminish the force of the heart's action, he has found aconite the best. His prescription is—

510. R. Tincturæ aconiti rad. (Fleming's) q. s.  
Two to three drops every three or four hours.

“No drug so fully and promptly relieves the vertigo and other painful sensations that attend cardiac hypertrophy.” It is contra-indicated if the dilatation overbalances the hypertrophy of the cardiac walls. Digitalis is contra-indicated unless there is degeneration of the hypertrophied walls.

J. M. DA COSTA, M. D., PHILADELPHIA.

In the treatment of hypertrophy of the heart, as much rest as possible should be insisted upon. The patient must be directed to lie down for several hours each day. The sinking of the pulse, which naturally occurs in the recumbent position, makes this posture as potent a cardiac sedative as we possess. All stimulants to the action of the heart should be removed. This includes the removal of any dyspeptic symptoms which may be present, and of any other disordered function which can react upon the heart.

There are only two drugs in which our author has any confidence; one is aconite, or its active principle, aconitia, and the other veratria. These are the only medicines which directly and positively control the element of muscular power of the heart. Digitalis does not compare as a pure sedative with either aconite or veratrum viride. Gelsemium is useless; it has a false reputation. It is time lost to employ it. Hydrocyanic acid is often a useful and pleasant adjunct when there is gastric disturbance; alone it is of no value.

These principles apply both in the treatment of simple hypertrophy, and in that complicated with valvular disease. A certain amount of hypertrophy with valvular disease is beneficial, and judgment must be exercised in order to determine when to interfere, and when not.



511. R. Tinct. veratri viridis, f.ʒiiss  
 " aconiti radidis, f.ʒss  
 " zingiberis, f.ʒvss. M.
- Fifteen drops thrice daily, two hours after meals, in water.

The addition of the tincture of ginger causes the veratrum viride to be better borne by the stomach. Our author also frequently orders—

512. R. Tinct. aconiti radidis, gtt.j.  
 Thrice daily for many months, its effects being watched.

In a large number of cases this remedy thus employed prevents the further growth of the heart, and in some it lessens the already existing bulk of the organ.

#### DR. WALSHE.

513. R. Extracti aconiti alcoholici, gr.ijss.  
 For 20 pills. One as a dose. In repeating the dose, the effect must be watched.

Our author prefers this to all other cardiac sedatives in this affection.

#### RÉSUMÉ OF REMEDIES.

*Aconite* is one of the only two drugs (the other being veratrum) in which most authorities have any confidence in hypertrophy of the heart.

*Camphor* has been recommended, in doses of from grs. iij-xij, daily, as rendering regular the most tumultuous palpitations, and removing the dyspnoea attendant on hypertrophy of the heart with dilatation.

\**Digitalis*. In regard to the value and propriety of the use of this remedy in hypertrophy there is considerable difference of opinion. Prof. DA COSTA says it does not compare, as a pure sedative, with either aconite or veratrum viride. The best effects of digitalis in hypertrophy are obtained from small doses, large doses being regarded by many as hurtful, if not dangerous, in this affection. Drs. GULL, WILKS, FULLER, W. MURRAY, and HANDFIELD JONES, regard digitalis as prejudicial, and even dangerous, in simple hypertrophy, and would restrict its use to cases of dilatation and enfeeblement of the heart.

*Fel Bovinum Purificatum* has been recommended in certain forms of hypertrophy.

*Hydrocyanic Acid* alone has, according to Prof. DA COSTA, no value, but is often a useful and pleasant adjunct, when there is gastric disturbance.

*Plumbi Acetas* has been recommended in the incipient stages of hypertrophy, but is of doubtful value other than in relieving, in some cases, violent palpitations connected with hypertrophy.

*Potassii Bromidum* has been employed, but its utility is not established.

*Potassii Iodidum* in small doses, long continued, seems to exercise, in some cases, a beneficial influence.



\**Veratrum Viride* is one of the only two drugs (the other being aconite) in which Prof. DA COSTA has any confidence.

*Diuretics* are strongly recommended by Dr. J. HOPE in hypertrophy, not only when there is dropsy but also when there is none, as powerful derivatives.

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## CARDITIS, ENDOCARDITIS AND PERICARDITIS.

PROFESSOR ARMAND TROUSSEAU, PARIS.

This eminent clinician recommends in endocarditis, and in pericarditis, general or local blood-letting, according to the strength of the patient, and the application of blisters. Internally, digitalis or digitaline, or the administration of the latter by the endermic method; or præcordial frictions with the tincture of digitalis.

ALFRED L. LOOMIS, M. D., NEW YORK.

Whatever the conditions which develop endocarditis, the patient should be kept in bed. Opium in small doses is proper. The temperature of the room should always be above 70° Fah. The chest should be covered with flannel, and not exposed. If the heart becomes feeble, digitalis is indicated. "Rest, opium, iron and the most nutritious diet, with occasional use of stimulants, constitute the most serviceable agents to be employed in the treatment of this affection."

In the *acute ulcerative form* of endocarditis large doses of quinine and stimulants are our only dependence.

In *pericarditis* the same cautions about rest, etc., are to be observed. Blisters, blood-letting, diuretics and cathartics our author considers useless; digitalis of doubtful value. "Opium, iron, moderate stimulation, rest in the recumbent posture, anodyne poultices and concentrated nutrition, are about the only measures which I have found of service in the treatment of acute pericarditis." Aspiration he commends only when it can be positively determined that pus is in the pericardium.

DR. SHINGLETON SMITH, LONDON,

Regards (*Lancet*, August 22d, 1874) the use of *aspiration* in copious effusion into the pericardium as of great value. From ten to fifteen ounces of fluid may be withdrawn, and the relief is immediate. The needle may be introduced in the space between



the fourth and fifth rib, about two inches to the left of the middle line of the trunk.

### RÉSUMÉ OF REMEDIES.

*Aconite* is recommended by Dr. RINGER in pericarditis when the heart throbs violently, and thus produces extreme pain.

*Antimonii-ses-iodidum* is sometimes employed.

*Aspiration* (see above).

\**Digitalis*, combined with hyoscyamus tincture (ää m<sub>xv</sub>-xx), is recommended by Dr. J. HOPE in pericarditis, after the acute symptoms have been subdued.

*Hydrargyrum* is considered by Dr. A. T. H. WATERS as rarely if ever desirable in pericarditis, except as a purgative. He prefers to the mercurial treatment and venesection recommended by Drs. LATHAM, HOPE, and others, the milder but more effectual remedies of opium, bicarbonate of potash, the moderate and cautious use of stimulants, large linseed poultices to the chest, and blisters in the advanced stage, with good nourishment throughout the disease.

\**Opium*, in grain doses, every three, four, six or eight hours, is recommended by Dr. A. T. H. WATERS in pericarditis. The great relief to pain which often follows the local abstraction of blood in this disease may be equally obtained by the administration of opium.

*Potassii Iodidum*, in doses of gr.iii-v ter die, is sometimes given with advantage in chronic pericarditis, appearing to favor the absorption of effused fluid.

*Veratrum Viride* is recommended by Dr. WARING-CURRAN (*The Practitioner*, August, 1868) in pericarditis. He gives it in the form of an extract made by inspissating the juice of the root, and combines with it gr.j of calomel, every two hours, carefully watching the effect.

*Blood-letting*. Venesection, which was formerly regarded as indispensable in inflammation of the heart and its membranes, is now much less frequently resorted to. The local abstraction of blood by *cups* or *leeches* often affords great relief to the pain, but many practitioners prefer to seek this relief by means of opium.

*Blisters* are hurtful in the early stages of cardiac inflammation, but useful in the advanced stages.

\**Poultices*. Large linseed-meal poultices are of signal service in the earlier stages of inflammatory action.

\**Turpentine* stupes, which can be employed at a far earlier period than blisters, are often of manifest advantage in relieving pain and distress, and arresting inflammatory action.

*Issues* in the præcordial region frequently give relief in chronic inflammation of the heart or its membranes.

### RHEUMATIC CARDITIS.

\**Colchicum*, with alkalies, etc., is, according to Dr. FULLER, necessary in rheumatic carditis, to counteract, and get rid of the materies morbi, without the removal of which it is difficult to conceive that a cure can be effected.

\**Hydrargyrum*, combined with opium, and carried to the extent of slight salivation, is strongly recommended by Dr. FULLER in rheumatic inflammation of the heart, occurring in young, robust subjects, but



he does not advocate its use in weakly, irritable and unhealthy constitutions.

\**Opium*, in large and repeated doses, is strongly recommended in rheumatic pericarditis by Drs. WALSHE, FARRE (*St. Bartholomew's Hospital Report*, II, 1867), and others. If the surface has been blistered, *morphia* may be used endermically; and often, when opium internally is inadmissible, benefit is obtained from *morphia* hypodermically. Dr. FULLER says that in rheumatic carditis opium in *full doses* is indispensable in every case. In the weak and irritable, where mercury is of little service, it proves particularly valuable. It is, of all remedies, that which comes most powerfully in aid of blood-letting and mercury. If, after all active symptoms have subsided, much irritability of the heart remains, occasional doses of opium and digitalis should be given, and an opium or belladonna plaster applied to the chest, while the general health is being attended to.

*Quinia Sulphas*, in doses of gr.ijss, combined with gr.xx of carbonate of potash, given in mucilage every four hours, was found by Dr. WINN (*Lancet*, November 14th, 1868) highly beneficial in a case of rheumatic pericarditis attended with delirium.

*Stimulants*. Alcoholic stimulants are often very beneficial in rheumatic pericarditis, especially when the attack is characterized by great pain, sleeplessness and jactitating movements of the limbs. In this form of the disease Dr. ANSTIE regards alcohol as superior to opium as an anodyne and specific. It should be given in repeated small doses, the production of even the minor signs of intoxication being carefully avoided.

*Blood-letting*. Dr. GARROD states that so much relief follows the application of leeches to the cardiac region in rheumatic pericarditis, and in endocarditis, that he has no hesitation in recommending the measure, the bleeding never being allowed to produce any appreciable weakening of the patient. Generally, from three to twelve leeches are sufficient. The slow loss of blood by leeching is preferable to the more expeditious abstraction by cupping.

\**Blisters* are recommended by Dr. FULLER in the advanced stages of rheumatic carditis, when effusion has taken place, as, of all local remedies, the most serviceable, their virtue being most unequivocally displayed when the amount of fluid is greatest.

## FATTY DEGENERATION OF THE HEART.

MR. JOHN MARTIN, OF DUBLIN.

This writer (*Dublin Journal of Medical Sciences*, February, 1875), believing that the fatty change is owing to an excess of carbonate of lime in the system, recommends the use of the nitric and hydrochloric acids in combination with iron. They should be taken in small quantities and for a long time. The diet should be one avoiding compounds of lime.



DR. A. T. H. WATERS, OF LIVERPOOL.

*Ferri Tinctura Chloridi* is highly recommended by Dr. A. T. H. WATERS, who believes that if it be given in small doses for a long time, it will often restore to an enfeebled and fatty heart a good deal of its vigor, and possibly of its structure. But its administration must be continued for months, and even years, being omitted from time to time, as the digestive organs may demand. A chalybeate mineral water may be substituted for the tincture of chloride of iron, if the latter cannot be taken.

## RÉSUMÉ OF REMEDIES.

*Digitalis*, according to Dr. A. L. LOOMIS, will sometimes afford relief when there is yielding of the cardiac walls.

*Ergot* is recommended by Dr. WARING CURRAN, as of material use in severe cases.

## FUNCTIONAL PALPITATION OF THE HEART.

J. MILNER FOTHERGILL, M. D., LONDON.

This writer commends (*Medical Times*, April, 1876), as the most satisfactory prescription, the following, or an appropriate modification of it:—

514. R.	Potassii bromidi,	grs.xv	
	Tincturæ digitalis,	gtt.v.	M.
This amount thrice daily.			

If there is anæmia present, the potassio-tartrate of iron will be found to combine nicely with this prescription. A belladonna plaster should be worn over the region of the heart.

J. M. DA COSTA, M. D., PHILADELPHIA.

Inquiry should always be made as to the cause, for the first step in the treatment is its removal. The cause may be found to be drinking of coffee, chewing of tobacco, smoking, alcoholic drinks, masturbation, etc.

In all cases of functional disorder of the heart, attended with palpitation, digitalis is very serviceable, more so than aconite. If



there be masturbation as the exciting cause, the following is a useful combination:—

515. R. Potassii bromidi, 3vss  
 Tincturæ digitalis, f.3ijss  
 Infusi cascarillæ, f.3iv. M.  
 A dessertspoonful two or three times a day.

ROBERTS BARTHOLOW, M. D., CINCINNATI.

The violent and irregular actions of the heart occurring in hysterical subjects are immediately relieved by the use of the hypodermic syringe. Morphia alone is used. In cases of dyspnœa, dependent upon dilated right cavities, pulmonary œdema and mitral disease, advantage is derived from the following

#### HYPODERMIC INJECTION.

516. R. Morphiæ sulphatis, gr.xvj  
 Atropiæ sulphatis, gr. j  
 Aquæ destillatæ, f.3j. M.  
 Filter. Dose—five minims (equal to one-sixth of a grain of morphia, and one ninety-sixth of a grain of atropia).

DR. BOUCHUT, PARIS.

517. R. Assafoetidæ, gr.xxxvj  
 Digitalis pulveris, gr.iiij  
 Extracti valerianæ, gr.vij. M.

Divide into 18 pills; one morning and evening, to remedy nervous palpitations of the heart. If the blood be impoverished, a ferruginous natural mineral water is a useful drink with the meals, mixed with wine.

#### RÉSUMÉ OF REMEDIES.

*Aconite*, in small doses, often controls nervous palpitations of the heart.

*Camphor*, in doses of gr.iiij–xij daily, is recommended in tumultuous palpitation.

\**Digitalis* is recommended by Prof. DA COSTA as more serviceable than aconite in all cases of functional disorder of the heart.

*Hyoscyamus*, in large doses, is especially indicated in functional disturbance of the heart arising from emotion. Dr. HARLEY recommends in these cases the hypodermic injection of gr. $\frac{1}{18}$  of sulphate of hyoscyamia.

*Morphia*, hypodermically, is recommended by Prof. BARTHOLOW in violent palpitation produced by emotion or reflex irritation.

\**Potassii Bromidum*, in doses of gr.v–x ter die, is recommended by Dr. RUSSEL REYNOLDS in palpitation or fluttering of the heart, arising from disturbances of the vaso-motor system.

*Senega*, in combination with hyoscyamus and ammonia, often proves useful in hysterical palpitations.



## INTERNAL ANEURISMS.

J. M. DA COSTA, M. D., PHILADELPHIA.

This author states there are but two remedies in which he has any faith in the radical treatment of internal aneurism. The first is *iodide of potassium*. It should be used boldly. The following recipe was given continuously for ten months, with the most marked beneficial results, in a case of chronic aneurism:—

518. R.	Potassii iodidi,	gr.xv	
	Syrupi tolutani,		
	Aquæ,	āā	f.3j. M.

For one dose, thrice daily.

This remedy does no good excepting early in the disease.

The second remedy referred to is *ergot*. It is not yet known definitely how much good it really does. Some very excellent results have been obtained by LANGENBECK. It may be given internally or by hypodermic injections.

In a disease so dangerous, so almost necessarily fatal, the importance of a knowledge of any remedy which seems to exert an influence is apparent. As both the iodide of potassium and ergot can be tried without injury to the patient, it is the duty of every practitioner, in cases of internal aneurism (in which, of course, surgical treatment is out of the question), to try one or the other of these drugs.

The following formula may be used for the hypodermic injection of ergotin:—

519. R.	Ergotinæ,	gr.ij	
	Spiritus vini rectificatæ,		
	Glycerinæ,	āā	f.3ss. M.

Five minims (equal to gr.  $\frac{1}{4}$  of ergotin) for a dose. This is the formula of EULENBERG.

Prof. LANGENBECK employs the aqueous extract of ergot or *Bon-jean's ergotin*. It is usually administered hypodermically in the dose of gr.  $\frac{1}{4}$ . In a case reported by LANGENBECK, thirty grains of this preparation were injected in forty days with great benefit. The subclavian aneurism diminished in size, and the other symptoms improved.

Prof. BARTHOLOW gives the following formula:—

520. R.	Extracti ergotæ fluidæ (U. S. P.),	f.3ij.
---------	------------------------------------	--------

Carefully filter and inject in ten-minim doses.



A. T. H. WATERS, M. D., OF LIVERPOOL.

In the *Lancet*, April, 1872, this writer recommends absolute rest, so far as possible, and a restricted diet. The patient should not so much as sit up in bed for weeks. His medicinal treatment is iodide of potassium, twenty grains three times a day, continued for months. The application of an ice-bag over the tumor has also produced good results at his hands.

Dr. WARD (*Medical Times and Gazette*, September 26th, 1874) also found decided value in the application of the ice-bag. He also administered digitalis with iron, and succeeded in causing the disappearance of the evidences of the tumor in a case of thoracic aneurism.

## RÉSUMÉ OF REMEDIES.

- \**Ergot*. This is one of the only two remedies (the other being iodide of potassium) in which Prof. DA COSTA has any faith in the radical treatment of internal aneurism. Ergotin may be injected hypodermically.
- Plumbi Acetas* is sometimes employed with success, but in the hands of many practitioners has proved a failure.
- \**Potassii Iodidum*, used boldly, is one of the only two remedies (the other being ergot) in which Prof. DA COSTA has any faith in the radical treatment of internal aneurism, but it only does good early in the disease.
- Senega*, combined with other diuretics, is recommended by Dr. BARLOW in aneurism of the aorta, to allay excitement without depressing the vital powers (see Valvular Disease).

## VALVULAR DISEASE OF THE HEART.

ALFRED L. LOOMIS, M. D., NEW YORK.

All valvular diseases require rest, the avoidance of strong emotions, a nutritious diet, and temperance. If anæmia is present, iron is called for. Digitalis should be employed carefully; "it should never be resorted to in aortic regurgitation while the hypertrophy compensates for the dilatation." Dr. LOOMIS thinks the best mode of administering it is by infusion.

The following tonic combination is commended by BARTHOLOW:—

521. R.	Pulveris digitalis,	ðij	
	Ferri redacti,		
	Quinix sulphatis,	āā ðj.	M.

To make 20 pills. One to be taken two or three times a day.



There is considerable diversity of opinion in the books as to the use of digitalis in aortic cases, though in other forms of heart disease opinions are pretty well agreed. Some authorities would regard aortic insufficiency as a nearly absolute contra-indication to the use of the drug. Dr. G. W. BALFOUR regards it as the most valuable remedy in this lesion. Mr. THOMAS HAYDEN says: "Given as the tincture, and combined with iron and ether, I have rarely known digitalis to cause unpleasant symptoms; on the contrary, in numerous instances it has been followed by the most favorable and satisfactory results. I have in a few instances been under the necessity of suspending the use of digitalis owing to threatened syncope; but in the cases referred to there was fatty degeneration of the heart, in some instances with, and in others without, disease of the aortic valves." Mr. HAYDEN's prescription is: ten minims each of tincture of digitalis, tincture of chloride of iron, and spirits of nitric ether in an ounce of infusion of quassia, thrice daily.

Dr. BALFOUR, however, will not allow the fatty degeneration to be the explanation, as he quotes a very good case in which the drug was most useful, and says, speaking of fatty heart, "I have never seen any reason to withhold digitalis, and have always hitherto been rewarded by considerable and well-marked improvement." He prefers the tincture, and orders  $\mathfrak{m}\nu$ -xxx every four hours, to be suspended if there is any faltering of the pulse or nausea on movement (*Edinburgh Medical Journal*, Feb., 1875).

PROFESSOR SÉE, PARIS.

This distinguished teacher recommends (*Union Médicale*, May, 1875) the following combined treatment in the oedema and anasarca which so frequently complicate cardiac affections. He claims to have effected their speedy disappearance.

522. R.	Extracti scillæ,	gr.xv	
	Pulv. rad. scillæ,	gr.iss.	M.
For 10 pills. Six to ten of these a day.			

Also,

523. R.	Potassii bromidi,	3j.
This amount to be taken daily, in divided doses.		



ROBERT J. GRAVES, M. D., DUBLIN.

524. R. Potassii nitratis,  $\mathfrak{Zj-ij}$   
 Tincturæ digitalis,  $\mathfrak{m}_{xxv}$   
 Tincturæ hyoscyami,  $\mathfrak{m}_{xv}$   
 Misturæ amygdalæ,  $f.\mathfrak{Zx.}$  M.

A tablespoonful from hour to hour in the œdema which accompanies disease of the heart.

DR. BOUCHUT, PARIS.

525. R. Digitalis pulveris,  $\mathfrak{Div}$   
 Morphiæ muriatis,  $gr.v$   
 Camphoræ pulveris,  $\mathfrak{Zss}$   
 Confectionis rosæ,  $q. s.$  M.

Divide into 40 pills. One to be administered morning and evening, in organic affections of the heart.

526. R. Tincturæ digitalis,  $f.\mathfrak{Zivss}$   
 Vini colchici,  $f.\mathfrak{Ziss}$   
 Potassii iodidi,  $\mathfrak{Zijss}$   
 Syrupi sarsaparillæ,  $f.\mathfrak{Ziss}$   
 Aquæ destillatæ,  $f.\mathfrak{Zijss.}$  M.

A teaspoonful three or four times a day in the anasarca of heart disease. The patient should be purged every third day with compound jalap powder.

527. R. Tincturæ aloës,  $f.\mathfrak{Zj}$   
 Tincturæ scillæ,  
 Tincturæ digitalis,  $aa \quad \mathfrak{m}_{xv.}$  M.

For one dose, every second or third day, in the dropsies of heart disease.

## RÉSUMÉ OF REMEDIES.

*Aconite* is contra-indicated or to be used with the utmost caution, in organic disease, where the power or force of the heart is impaired.

*Belladonna* is recommended by Dr. A. T. H. WATERS in form of plaster or lotion over the heart in palpitation combined with valvular disease, the patient at the same time being kept at rest in bed; rest alone is often efficacious. In severe cases belladonna is superior to digitalis (which see).

\**Digitalis* is recommended by Dr. A. T. H. WATERS in valvular disease, especially when there is hypertrophy of the heart. Dr. E. MACKEY (*British Medical Journal*, May 31st and July 11th, 1868) thinks that neither *mitral regurgitation* nor *mitral obstruction* contra-indicates the use of digitalis, and gives numerous cases in which it was employed with advantage; but he regards its employment in *aortic regurgitation* and in *fatty degeneration* as contra-indicated or of doubtful safety. In any case where the heart's action is very feeble. Dr. M. considers that the commencing dose of the tincture should be  $\mathfrak{m}_{v-x}$  every four or six hours; this dose may be increased to  $\mathfrak{m}_{xv-xx}$ , or even  $\mathfrak{m}_{xxx}$ , with benefit; but, as a general rule, such a dose as  $\mathfrak{m}_{xxx}$  should not be repeated more than twice in the twenty-four hours. An equivalent dose is  $f.\mathfrak{Zss}$  of the fresh infusion, or  $gr.j$  of the powdered leaves. The patient, before taking such a dose, must be kept recumbent at least half an hour, and kept so for two hours after. Dr. M.



hesitates to prescribe a larger dose than  $\mathfrak{m}\mathfrak{xv}$  of the tincture to any patient following his occupation, and believes that half-drachm doses of the tincture, repeated several times at short intervals, especially in the upright position, may dangerously interfere with the circulation, whether by over-stimulation or partial paresis. But given in the manner directed, no cumulative action has been observed.

*Ferri Chloridi Tinctura* is recommended in chronic valvular disease by various writers; given in long-continued small doses, is directed for fatty degeneration (which see).

\* *Morphia* has been employed hypodermically by Dr. CLIFFORD ALLBUT (*Practitioner*, December, 1869) with marked advantage in diseases of the heart. He gives the injection in the evening and enjoins perfect quiet afterward. His commencing dose is  $\text{gr.}\frac{1}{2}$  or  $\frac{1}{4}$  of the muriate increased, in ordinary cases, to  $\text{gr.}\frac{1}{4}$  for an adult. He finds it valuable in *mitral regurgitation*, but less valuable in mitral obstruction and in disease of the aortic valves; but in aortic disease, when the heart is big and pumping, it gives much ease. The urine, however, should always be examined and the morphia given with caution or withheld, if albumen be found. Prof. BARTHOLOW also recommends morphia hypodermically in *mitral disease*, but is opposed to its employment in narrowing and obstruction of the aortic orifice.

\* *Senega*, combined with some other diuretic, is recommended by Dr. BARLOW in valvular disease of the heart, to promote the action of the kidneys and relieve the palpitation, especially the palpitation arising from aortic disease. He employs the following formula:—

528. R.	Spiritus ætheris compositus,	f. $\mathfrak{z}\mathfrak{i}\mathfrak{j}$	
	Tincturæ hyoseyami,	f. $\mathfrak{z}\mathfrak{i}\mathfrak{ss}$	
	Decocti senegæ,	f. $\mathfrak{z}\mathfrak{i}\mathfrak{i}\mathfrak{j}$	
	Misturæ camphoræ, q. s., ad.	f. $\mathfrak{z}\mathfrak{i}\mathfrak{v}$ .	M.

Take  $\frac{1}{4}$  thrice daily.

*Veratrum Viride* is often employed with benefit on the pulse.

*Zinci Sulphas* is favorably spoken of by Dr. BARLOW in *mitral disease*. He employs:—

529. R.	Zinci sulphatis,	gr. $\mathfrak{i}\mathfrak{i}\mathfrak{j}$	
	Extracti lupuli,	gr. $\mathfrak{v}\mathfrak{j}$ .	M.

Make six pills. Take one thrice daily.

The dose of the zinc should be gradually increased to  $\text{gr.}\mathfrak{i}\mathfrak{i}\mathfrak{j}$ . When there is much palpitation, he advises its combination with camphor.

530. R.	Zinci sulphatis,	gr. $\mathfrak{j}$ — $\mathfrak{i}\mathfrak{i}\mathfrak{j}$	
	Camphoræ,	gr. $\mathfrak{j}$	
	Extracti hyoseyami,	gr. $\mathfrak{i}\mathfrak{j}$ .	M.

Make into pills. Take thrice daily. When there is much irritability of the stomach the iodide should be substituted for the sulphate.

*Diuretics* are found beneficial by Dr. HOPE in every stage of valvular disease of the heart. They draw off the serous portions of the blood, diminish the quantity without deteriorating the quality of that fluid, and thus relieve palpitation and dyspnœa, and obviate infiltration, without materially reducing the strength.



## IV. DISEASES OF THE DIGESTIVE SYSTEM.

*The Mouth—The Fauces—Anorexia—Biliary Calculi—Cholera Asiatica—Colic (Flatulence, Ileus, Colica Pictonum)—Constipation, Habitual—Diarrhœa (acute, chronic)—Dysentery (acute, chronic)—Dyspepsia—Gastralgia—Gastritis—Gastric Ulcer—Hematemesis—Hepatitis, (acute, chronic)—Jaundice,—Liver: Functional Disorders of—Pyrosis—Vomiting.*

### THE MOUTH.

#### STOMATITIS.

In this disease Dr. ROBERTS BARTHOLOW extols the following:—

- |         |                    |      |      |
|---------|--------------------|------|------|
| 531. R. | Potassæ chloratis, | ʒi   |      |
|         | Acidi carbolici    | ʒss  |      |
|         | Aquæ destillatæ,   | ʒiv. | . M. |
- For a lotion. Apply directly to the affected part.

“There is no more effective remedy for *ulcerative stomatitis*, the stomatitis of nursing women, and *aphthæ*.”

PROF. S. D. GROSS, PHILADELPHIA.

- |         |                              |          |    |
|---------|------------------------------|----------|----|
| 532. R. | Liquoris plumbi subacetatis, | f.ʒj     |    |
|         | Aquæ,                        | f.ʒviij. | M. |

To be used as a mouth wash every hour or two in cases of *mercurial stomatitis*.

The only objection to this lotion is that it discolours the teeth, which effect, however, quickly disappears. At the same time, internally, the chlorate of potassa should be administered. Fifteen to thirty grains are to be taken *ter die* in mucilage or lemonade.

J. COPLAND, M. D., OF LONDON.

- |         |                         |        |    |
|---------|-------------------------|--------|----|
| 533. R. | Acidi muriatici diluti, | f.ʒss  |    |
|         | Tincturæ capsici,       | f.ʒjss |    |
|         | Mellis,                 | f.ʒv   |    |
|         | Infusi rosæ,            | f.ʒv.  | M. |

To be used in stomatitis when the ulcers are slow in healing.



534. R. Manganis carbonatis, ʒj  
 Ferri carbonatis, ʒjss  
 Potassii iodidi, ʒij  
 Tincturæ gentianæ compositæ, aa  
 Syrupi sarsaparillæ compositæ, f.ʒijss. M.
- Two teaspoonfuls a day in ulcerous stomatitis.

## DR. MAURICE JEANNEL, OF PARIS.

535. R. Tincturæ myrrhæ,  
 Mellis rosæ, aa f.ʒij.  
 Liquoris calcis, f.ʒiss. M.
- Touch several times a day the superficial ulcerations of the mouth.

536. R. Potassii chloratis, ʒijss  
 Acidi muriatici diluti, f.ʒss  
 Mellis rosæ, f.ʒviiij  
 Aquæ, f.ʒjss. M.
- A useful gargle in ulcerations and gangrenous stomatitis.

537. R. Tincturæ myrrhæ, f.ʒij  
 Acidi muriatici diluti, gtt.x  
 Infusi rosæ,  
 Decocti cinchonæ, aa f.ʒiiij. M.
- Use as an astringent and alterative gargle in inflammation of the mouth and throat.

538. R. Liquoris calcii chloridi, f.ʒiiij  
 Mellis rosæ, f.ʒviiij  
 Aquæ distillatæ, f.ʒv. M.
- Useful in ulcerous stomatitis and in fetid breath.

## APHTHÆ.

## DR. N. GALLOIS, OF PARIS.

539. R. Sodii boratis, ʒss  
 Glycerinæ, f.ʒss  
 Mellis despumatæ, f.ʒiiij. M.
- Touch lightly with the solution, by means of a camel's-hair pencil, several times a day, the aphthous ulcerations of the mouth. In case of the insufficiency of this remedy, resort to the nitrate of silver.

540. R. Aluminii et potassii sulphatis, ʒj  
 Tincturæ myrrhæ, f.ʒiss  
 Aquæ destillatæ, f.ʒiv. M.
- A useful gargle in aphthous stomatitis.

Or :

541. R. Tincturæ myrrhæ, f.ʒv  
 Tincturæ opii camphoratæ, f.ʒiss  
 Mellis rosæ, f.ʒj  
 Decocti hordii, f.ʒv. M.
- A useful gargle and wash in aphthous inflammation of the mouth and throat;



Or employ :

542. R. Tincturæ myrrhæ, f.ʒiij  
 Mellis despumatæ, f.ʒj  
 Infusi rosæ, f.ʒiv. M.  
 Used as a gargle, as above.

## THE FAUCES.

### INFLAMED SORE THROAT.

J. M. DA COSTA, M. D., PHILADELPHIA.

543. R. Cupri sulphatis, ʒj  
 Aquæ, f.ʒj. M.

Apply with a brush three times a week in cases of follicular pharyngitis.

E. W. FRISBIE, M. D., EAST SPRINGFIELD, NEW YORK.

544. R. Iodinii, gr.x  
 Potassii iodidi, gr.xx  
 Mucilaginis acaciæ, f.ʒj  
 Sacchari albi, ʒij-ʒiv  
 Aquæ, f.ʒss. M.

To be applied with a camel's-hair pencil two or three times daily in irritable and inflamed sore throat, follicular pharyngitis, etc.

PROFESSOR JOSEPH PANCOAST, M. D., PHILADELPHIA.

545. R. Cinchonæ rubri, ʒss.  
 Aquæ bullientis, Oss. M.

Strain and add:

546. R. Tincturæ myrrhæ,  
 Tincturæ krameræ,  
 Mellis despumatæ, āā f.ʒj  
 Acidi muriatici diluti, gtt.xv. M.

Use as a gargle in cases of chronic sore throat.

DR. N. GALLOIS, PARIS.

547. R. Aluminii et potassii sulphatis, ʒj  
 Decocti quercus albæ, f.ʒiv  
 Vini albæ, f.ʒijss. M.

This is a useful gargle in chronic inflammatory affections of the throat attended with relaxation of the uvula.

548. R. Sodii boratis, ʒj  
 Extracti opii, ʒj  
 Mellis, f.ʒj  
 Infusi salviæ, f.ʒvj. M.

Employ as a gargle in inflammatory sore throat.



549. R. Acidi tannici,  $\overline{3}^{ss}$   
 Mellis rosæ,  $f.\overline{3}^{iss}$   
 Aquæ rosæ,  $f.\overline{3}^{ivss}$ . M.

Employ as a gargle in chronic sore throat.

550. R. Potassii nitratis,  $\overline{3}j$   
 Sodii sulphatis,  $\overline{3}v$   
 Antimonii et potassii tartratis,  $gr.^{ss}$   
 Syrupi acaciæ,  $f.\overline{3}^{iss}$   
 Aquæ sambuci,  $f.\overline{3}^{ivss}$ . M.

A tablespoonful every hour or two in acute inflammatory sore throat.

551. R. Sodii boratis,  $\overline{3}ij^{ss}$   
 Glycerinæ,  $f.\overline{3}j$ . M.

Or:

552. R. Acidi tannici,  $\overline{3}j$   
 Glycerinæ,  $f.\overline{3}j$ . M.

Dip a fine brush in either of these solutions, and touch the false membranes several times a day.

553. R. Acidi tannici,  $\overline{3}^{ss}$   
 Aluminii et potassii sulphatis,  $\overline{3}j$ . M.

Reduce to a fine powder, and use by insufflation.

#### DR. RENAULDIN, FRANCE.

554. R. Ammonii chloridi,  $\overline{3}j$   
 Spiritus camphoræ,  $f.\overline{3}^{ss}$   
 Oxymellis,  $f.\overline{3}j$   
 Decocti cinchonæ rubræ,  $f.\overline{3}^{vij}$ . M.

Employ as a gargle in gangrenous sore throat.

555. R. Acidi muriatici,  $gtt.xx-xxx$   
 Mellis rosæ,  $f.\overline{3}j$   
 Decocti cinchonæ rubræ,  $f.\overline{3}v$ . M.

Employ as a gargle in gangrenous sore throat.

## ANOREXIA.

#### DR. N. GALLOIS, PARIS.

556. R. Tincturæ nucis vomicæ,  $gtt.v$   
 Extracti gentianæ,  $gr.xv$   
 Syrupi aurantii corticis,  $f.\overline{3}^{iss}$   
 Vini cinchonæ,  $f.\overline{3}v$ . M.

One-half to be taken half an hour before each of the two principal meals, in order to awaken the appetite.



557. R. Rhei, gr. xxxv  
 Aloës socotrinæ, gr. xxv  
 Myrrhæ,  
 Saponis, āā ʒj  
 Spiritūs menthæ piperitæ, ℥. iij.  
 Extracti taraxaci, ʒij. M.

Divide into 45 pills, and order from one to three at a dose, as laxatives, and to stimulate the functions of the stomach.

558. R. Aloës socotrinæ, gr. xvj  
 Ipecacuanhæ, gr. vijs  
 Zingiberis, gr. xxv  
 Syrupi, q. s. M.

Divide into 16 pills, order one a day, before dinner, to stimulate the appetite and regulate the system.

559. R. Fel bovini purificati, ʒiv  
 Ferri carbonatis, ʒss  
 Rhei,  
 Extracti gentianæ, āā ʒiv. M.

Divide into 120 pills, order six or ten a day, to combat a want of appetite.

## DR. REECE, FRANCE.

560. R. Sodii carbonatis exsiccata, ʒj  
 Extracti gentianæ, ʒij  
 Zingiberis, gr. xij M.

Divide into 36 pills, and order two morning and evening, as absorbents and stomachics.

## PROF. FONSSAGRIVES, MONTPELLIER, FRANCE.

561. R. Extracti cinchonæ flavæ, ʒss  
 Tincturæ nucis vomicæ, gtt. v  
 Syrupi aurantii corticis, f. ʒiss  
 Claret wine, f. ʒviiij. M.

Take several tablespoonfuls, at the commencement of the meals, to stimulate the appetite.

## LONDON HOSPITAL.

562. R. Pulveris anthemidis, ʒss  
 Pulveris rhei,  
 Pulveris zingiberis, āā ʒij. M.

Divide into 16 powders. Take one a day, an hour before or after meals, to stimulate the appetite and facilitate digestion.

## DR. HUSS, FRANCE.

563. R. Pulveris nucis vomicæ, gr. xv-xx  
 Pulveris quassia, āā ʒss. M.  
 Cretæ præparata,

Divide into 20 powders, and order one three times a day, half an hour before each meal, to stimulate the appetite and favor digestion.



## DR. KLEIN, FRANCE.

564. R. Pulveris rhei,  
 Potassii tartratis,  
 Pulveris aurantii amari corticis,   āā   ℥ss  
 Olei cajuputi,                               gtt.iiij.   M.

To be given in one dose, to obtain a purgative effect and establish the appetite.

## DR. CAFFE, PARIS.

565. R. Extracti nucis vomicæ,                               gr.xv  
 Pulveris rhei,   ℥j  
 Cretæ præparatæ,                                       ℥ij  
 Spiritûs menthæ piperitæ,                           gtt.ij  
 Sacchari,   gr.v.   M.

Divide into twelve powders. One to be taken half an hour before the meal when there is want of appetite.

## DR. BERNAUDEAU, FRANCE.

566. R. Extracti columbæ,  
 Extracti quassiaë,                               āā   ℥ss  
 Malaga wine,   Oj.   M.

Dissolve and filter. Two tablespoonfuls half an hour before each of the two principal meals, in dyspepsia, and to stimulate the appetite of convalescents.

## BILIARY CALCULUS.

## DR. M. SCHIFF, OF FLORENCE.

The choline of soda is recommended (*L'Imparziale*, Feb. 16, 1873) by our author in the treatment of biliary calculus. He says that biliary calculi are generally produced, not in consequence of an excessive formation of cholesterine, but because there is a deficiency of its solvents in the bile—the cholinates and cholates of soda and potash. He suggests the administration of these salts in cases of gall-stone; not to remove the cholesterine already deposited, which he does not think possible, but to hold it in solution and prevent further deposit. It has been proved that bile or a solution of biliary salts, taken into the stomach or intestine, is conveyed to the liver, and that the bile discharged is richer and more dense. He advises that the choline of soda should be given in doses of  $7\frac{1}{2}$  grains twice a day, until symptoms of disturbance of digestion or of circulation are noticed. Saturation of



the system with the medicine is indicated by irregularity of the pulse, which becomes very slow during rest, and is sensibly accelerated by movement of the body or by slight excitement. When this occurs the medicine should not be interrupted, but the dose must be diminished. No good effect is to be expected unless the remedy be continuously administered for some time.

DR. DURAND, PARIS.

567. R.	Olei terebinthinæ,	f.ʒiij	
	Ætheris sulphurici,	f.ʒij.	M.
Half a teaspoonful night and morning.			

This is the celebrated "solvent" of DURAND, endorsed by TROUSSEAU. It has unquestionable utility as a preventive of the recurrence of an attack. Alkaline drinks, such as Vichy water, or as Dr. PROUT recommends, bicarbonate of soda, ʒi or ʒij in warm water Oj, aid its action.

### RÉSUMÉ OF REMEDIES.

- \**Belladonna*. Dr. MURCHISON highly recommends the extract of belladonna, in one-half grain doses, every two or three hours, in the passage of gall-stones.
- Chloral* is frequently employed with advantage, on account of its producing muscular relaxation.
- \**Chloroform* by the mouth, or in the form of inhalation, relieves pain, diminishes spasm and does not interfere with the onward propulsion of the stone.
- Ether*, internally, has been recommended on account of its power of dissolving cholesterine, as well as because of its anti-spasmodic properties.
- \**Opium* in full doses (gr.ij or gtt.xl of laudanum) by the mouth or rectum, repeated in half an hour if necessary, generally relieves the intense pain attending the passage of biliary calculi better than any other remedy. It should be combined with the use of the hot bath. The administration of ether or chloroform may also be advantageously resorted to. The *hypodermic injection of morphia* (gr.¼), repeated if necessary, is particularly useful, from the rapidity of its action.



## CHOLERA ASIATICA.

THE MEDICAL STAFF, U. S. ARMY.

The classical work on *The Cholera Epidemic of 1873 in the United States*, mainly prepared by Dr. ELY McCLELLAN, U. S. A., contains the well-digested experience of practitioners during the last cholera epidemic in this country. We quote some of the most successful measures adopted.

Dr. R. W. MITCHELL, of Memphis, Tenn., writes: "When satisfied that I had cholera to contend with, as indicated by rice-water discharges, vomiting, cramps and shrinkage of extremities, I ceased medication by the stomach, and used the formula given hypodermically:—

568. R.	Acidi sulphurici,	℥ss	
	Morphiæ sulphat,	gr. ½	
	Spiritûs vini gallici,	℥iss	
	Aquæ destillatæ,	℥iij.	M.

"The above was injected under the skin of the arms, legs and over the stomach every hour until the symptoms of the disease were relieved."

Dr. G. B. THURSTON, of Memphis, Tenn., writes: "The general treatment that I adopted was about as follows: Calomel and opium in alterative doses, say in two of the former to one of the latter, repeated every hour for several hours. In conjunction with this, used the following:—

569. R.	Extracti canabis indicæ,	gr. xvj	
	Gum camphor,	℥ss	
	Chloroform,	℥ss	
	Olei terebinthinæ,	℥ij	
	Mucilag. acaciæ,		
	Syrupi simplicis,	āā	℥ss
	Aquæ cinnamomi,		℥j.
			M.

Dose, a teaspoonful every one or two hours.

Dr. J. T. JONES, of Nashville, Tenn., reports that, in the cold stage of cholera, he has used creasote with greater success than any other article of the materia medica, and suggests the following formula:—

570. R.	Creasoti,	gtt. j	
	Aquæ camphoræ,		
	Infusi gentianæ compositæ,	āā	℥vj.
			M.

At a dose, and repeated every two hours.



Dr. S. T. CHANDLER, of Campbellsville, Ky., who treated, during the epidemic of cholera in 1854, some sixty to seventy cases of the disease in its various stages, records his experience as having been largely in favor of the use of dilute sulphuric acid in full doses and repeated every fifteen to thirty minutes, until the vomiting and purging are arrested. In the epidemic of the year 1873, the same plan of treatment was adopted, and with like results. "The acid relieves the nausea, arrests the vomiting like a charm, and gradually the dejections are stopped."

Dr. McCLELLAN adds, that the necessity of instituting treatment at the earliest moment after the occurrence of a diarrhœa was most generally recognized throughout the area of infection. Whenever physicians, during the progress of the epidemic, ceased the attempt to diagnose between cholera, cholera-morbus and diarrhœa, and treated all cases that occurred as cases of cholera, the lists of mortality were reduced; while, on the other hand, increasing mortality was shown whenever too great reliance was placed upon diagnostic powers.

The evidence is conclusive that the exhibition of opium, followed by alterative doses of calomel, and absolute rest in the recumbent posture, almost invariably arrested the disease when in the premonitory stage. In the advanced stages, the entire range of the pharmacopœia seems to have been brought into use, with no better results than had been obtained in previous epidemics.

The experience of the writer is strongly corroborative of the beneficial results which may be obtained from the use of sulphate of iron and dilute sulphuric acid as prophylactics during an epidemic of cholera; and, further, that the most successful treatment of the disease is to be found only in all that is implied in the word sanitation.

Dr. JOHN M. WOODWORTH, Supervising Surgeon U. S. Marine Hospital Service, records the experience of his department in the following language: "Beginning with the year 1814, the cholera literature down to the present time abounds in proofs, clinical, physiological, pathological and meteorological, of the efficacy of sulphuric acid, and there can be no doubt, despite the dicta of the last International Sanitary Conference, that we possess in the mineral acid a certain means of prophylaxis against cholera. The lessons of the epidemic of 1873 point strongly to the value of sulphuric acid even as a therapeutic agent against the disease.



According to Dr. McCLELLAN, mortality among cholera patients treated with acids was only eight per cent., while the lowest mortality rate where other remedies were used was twenty-three per cent., and the highest fifty-nine per cent."

DR. WILLIAM STEVENS, OF LONDON.

This author in two epidemics claims to have had very successful results from the *saline* treatment, in his hospital and prison patients. Cases presenting premonitory symptoms—diarrhœa and vomiting—were removed into an observation ward, where an even temperature was constantly maintained. A seidlitz powder was immediately administered; if sinking was felt, without purging, three or four teaspoonfuls of Epsom salts were added to the powder. On these agents acting, plenty of thin beef tea, well seasoned with salt, was given; if there was any pain, a sinapism was applied to the gastric region; and thirst was relieved with seltzer water, soda, or pure water *ad libitum*. Most of the cases were thus cured. If, however, cramps, coldness or shrinking of the pulse came on, the patients were considered as cholera cases in the second degree. The following was then administered:—

571. R.	Sodii chloridi,	℥ij	
	Sodæ carbonatis,	℥ij	
	Potassæ chloratis,	℥ij	
	Aquæ,	f. 3vj.	M.

Two tablespoonfuls in water about every half-hour.

If there was much irritability of stomach, a large sinapism was applied; if much heat or burning pain, an additional quantity of carbonate of soda was added to the mixture. In cases in the stage of collapse, a strong solution of the same salts, dissolved in hot water (100° F.), was thrown into the bowels, and repeated every two or three hours. Sinapisms were also applied to the stomach, between the shoulders, etc.; and in the cold stage, frictions with warm towels were used. A pure air for the patient to breathe was considered of the greatest importance.

In mild cases, the "wet-sheet envelope" will favor reaction, but it has only proved mischievous in severe instances. When the vomiting is severe, or the thirst insatiable, nothing gives more relief than permitting ice to be continually sucked. The patient is also to be isolated as far as possible. He is to have plenty of fresh air; and care must be taken that the water he drinks is un-



contaminated—particularly, that it has not been drawn from a well near any sewer. Moreover, his excreta should be received in a pan containing a disinfecting fluid, and then at once thrown away.

The greatest caution will subsequently be required for many days as to diet; not a few deaths have occurred from the too early use of animal food. As a rule, broths and farinaceous substances only should be allowed, without any solids whatever, until the renal secretion has been fully re-established, and all the symptoms have vanished.

DR. FLEMING, QUEEN'S HOSPITAL, BIRMINGHAM.

- |         |                             |         |    |
|---------|-----------------------------|---------|----|
| 572. R. | Plumbi acetatis,            | gr.xxiv |    |
|         | Liquoris morphinæ acetatis, | f.ʒj    |    |
|         | Acidi acetici diluti,       | ℥.xij   |    |
|         | Aquæ destillatæ,            | f.ʒvj.  | M. |

A tablespoonful every two hours (an hour before or an hour after food is taken) in a tablespoonful of water; beef tea and milk, alternately, every four hours; warm negus in moderation.

The value of acetate of lead and opium in diarrhœa is well known. Dr. FLEMING calls attention to the *mode of administration*. The astringent action of both lead and morphia is in consequence of their absorption and conveyance in the blood to the affected part. Hence, the marked advantage of giving them in a thorough solution in distilled water, which promotes their passage into the blood. This is further secured by giving the medicine on an empty stomach before meals, and so avoiding, as far as possible, precipitation of the lead by contact with the gastric fluids. In the ordinary lead and opium pill, more or less lead is probably converted into the meconate; or the pill dissolving slowly in the stomach in contact with the gastric secretions, the lead runs much risk of conversion into the insoluble chloride. Our author has adopted this mode of administration for many years, and speaks strongly of its efficiency. In the diarrhœa of children the same mixture, according to the following formula, gives most valuable results:—

- |         |                             |         |    |
|---------|-----------------------------|---------|----|
| 573. R. | Plumbi acetatis,            | gr.xij  |    |
|         | Liquoris morphinæ acetatis, | ℥.xij   |    |
|         | Acidi acetici diluti,       | f.ʒj    |    |
|         | Aquæ destillatæ,            | f.ʒiij. | M. |

A teaspoonful every five, six or eight hours, to a child one year of age.

WILLIAM SEDGWICK, M. R. C. S., ETC., LONDON.

Our author strongly recommends (the *Lancet*, August 19th, 1871) *dilute phosphoric acid* in half-drachm doses, combined with syrup of orange, and largely diluted with ice-water.



In cases of choleraic diarrhœa, and in the early stage of confirmed cholera, this remedy appears to be capable of checking the progress of the disease with greater certainty than sulphuric acid.

GEORGE JOHNSON, M. D., F. R. C. P., PROFESSOR OF MEDICINE IN KING'S COLLEGE, LONDON; PHYSICIAN TO KING'S COLLEGE HOSPITAL, ETC.

In the treatment of cholera and choleraic diarrhœa, which is, in fact, cholera in a mild form, the main principle to bear in mind is, that the discharges are as essentially curative as is the eruption of small-pox. The discharges are not to be abruptly stopped by opiates. Experience has abundantly proved that this is a pernicious practice. Neither are they permitted to accumulate in the alimentary canal. There is one remedy which is almost universally applicable in all forms and stages of the disease, and that is an abundant supply of cold water, to flush the intestinal sewer and to wash out the poisonous discharges. A copious imbibition of pure cold water will suffice for the cure of most curable cases.

Palpation and percussion of the abdomen reveal the fact that there occurs not unfrequently a painful and sometimes a paralyzing over-distention of the bowel by rapidly effused morbid secretion. This, if not promptly relieved, may even go to the extent of causing a fatal obstruction. More especially is this likely to happen when the sensibility of the bowel has been deadened by opium. The plan to prevent and to remove this accumulation is to give some quickly-acting yet unirritating evacuant dose. For this purpose, castor oil is, on the whole, better suited than any other remedy. The objection sometimes raised—that all remedies must be useless, because none are absorbed—obviously does not apply to such a remedy as castor oil, which, by its merely local action upon the mucous surface, stimulates the bowel and expels its contents. Experience has amply proved the success of the treatment in this and kindred classes of cases.

The time to give opium, if at all, is in small doses, to soothe the bowel, after the expulsion of the poisonous secretions. Opiates are useless, or even dangerous, when the blood is poisoned, or when the bowel contains offensive, morbid secretions. Opiates in the early stages of diarrhœa and cholera would be more frequently and decidedly injurious, were it not for the fact that their absorption is prevented by the rapid current of liquid which is being passed from the blood into the alimentary canal; therefore, they



are quickly expelled, together with the morbid secretions, and they are powerless to arrest the discharges (*The British Medical Journal*, August 19th, 1871).

Sir THOMAS WATSON, Bart., M. D., etc., states in the last edition of his *Practice* that he firmly believes that the doctrines advanced by Dr. JOHNSON are well founded, and approves his rules of treatment. No doubt the true indication of treatment is to stop the flow as soon as possible; but this may sometimes be best effected (as also in copulous diarrhœa and in the summer cholera of Sydenham) by carrying off the offending matter.

JOHN MURRAY, M. D., INSPECTOR GENERAL OF HOSPITALS, INDIAN MEDICAL SERVICE.

When irritating or indigestible food in the bowels is the cause, as is frequently the case, of the early diarrhœa, it should be removed, if it has not previously been discharged in the evacuations, and a recurrence of the looseness guarded against. For this purpose our author recommends the following cholera pill:—

574. R. Pulveris opii,	gr. j.	
Piperis,	gr. ij.	
Assafœtidæ,	gr. iij.	M.
To make one pill.		

It appears to check the looseness and stimulate the secretions, and does no harm if needlessly exhibited. It should be repeated should the looseness continue. It will cure most cases, and in all restrain the symptoms until regular medical advice can be procured. It may be distributed to every house and be available in a few minutes, whereas the delay of a few hours may allow the disease to advance beyond control. These pills have been distributed in tens of thousands in the towns and villages of India with most satisfactory results. Some surgeons prefer red to black pepper, and others add camphor to the opium and assafœtida, and report favorably of the combination. They are distributed in the dispensaries and placed in the charge of the police in India (*The British Medical Journal*, August 12th, 1871.)

In a discussion at the Thirty-ninth Annual Meeting of the British Medical Association, between Drs. JOHN MURRAY and GEORGE JOHNSON, Dr. M. stated that Dr. JOHNSON seemed to confound elimination with purgation, and that nature was best assisted by restraining the further advance of the disease, of which the most



dangerous symptom is looseness, whether naturally induced by indigestion, by improper food, or by purgative remedies. Dr. JOHNSON said that the main difference between Dr. M. and himself was with regard to the treatment of the early stage of cholera, Dr M. considering evacuants dangerous and opiates safe, while he (Dr. J.) held an opposite opinion with regard to both classes of remedies (*The British Medical Journal*, August 26th, 1871).

## DR. N. GALLOIS, PARIS.

575. R. Sinapis nigræ pulveris, ℥iij  
 Spiritûs terebinthinæ, f.℥vj.  
 After standing four days, filter and add,  
 Camphoræ pulveris, ℥ij. M.  
 This liniment is to be employed in frictions to induce revulsion in the skin.

A still more energetic rubefacient is the following :—

576. R. Spiritûs sinapis, f.℥ijss  
 Alcoholis, f.℥vj. M.

Or,

577. R. Spiritûs sinapis, gtt.l  
 Olei amygdalæ dulcis, f.℥j. M.

These mixtures are to be spread on the skin and covered with compresses during about ten minutes.

## DR. BOURGOYNE, FRANCE.

578. R. Tincturæ opii camphoratae, gtt.xxx  
 Aquæ menthæ piperitæ, f.℥vj  
 Syrupi aurantii florum, f.℥j  
 Malaga wine, f.℥iv. M.

A tablespoonful to be given every quarter to half an hour, to patients affected with cholera. For drink, rice-water, with a little old Bordeaux wine added. Mustard plasters over the abdomen; starch enemata.

## RÉSUMÉ OF REMEDIES.

*Ammoniac Aqua*, when inhaled or taken internally, largely diluted, is a useful stimulant and restorative in the collapse of cholera.

*Argenti Nitras* has been recommended injected into the colon, by means of a long flexible tube.

The following solution is thus injected :—

579. R. Argenti nitratis, gr.xvj  
 Aquæ destillatæ, f.℥iv. M.

Ten minutes afterward the following enema is to be administered :—

580. R. Tincturæ opii, f.℥iv  
 Gruel, f.℥vj. M.



Dr. WARING considers this treatment worthy of trial. In an epidemic of cholera at Assam, in 1853, Dr. BARRY used nitrate of silver internally with great success, giving one grain after each stool.

*Atropiæ Sulphas*, hypodermically, in dose gr.  $\frac{1}{100}-\frac{1}{40}$ , is recommended by Dr. HARLEY as one of the most appropriate and useful means of resuscitation in the collapse of cholera. It stands at the head of all our stimulants in such cases, for there is no medicine which approaches belladonna in its simple, direct, immediate, and powerful influence in exalting the force and rapidity of the heart's action.

\* *Camphor* is recommended by Dr. SYDNEY RINGER, from personal experience. He gives six drops of a strong alcoholic solution of camphor every ten minutes, until the symptoms have abated, and then less frequently. By this treatment he generally, at once, controlled the vomiting and diarrhœa, and often altogether checked them, removed the cramps, and restored warmth to the extremities. An Italian physician, Dr. RUBINI, of Naples, is said to have treated with success nearly six hundred patients by a solution of camphor in alcohol at 60° over proof. The commencing dose was gtt. iv, every five minutes (in severe cases, gtt. xx, or more), persevered in until reaction set in, the patient being well wrapped up in blankets. It should be given in sugar, and not in water, as in the latter the camphor solidifies and loses its power.

*Cannabis Indica* has been highly spoken of,  $\mathfrak{m}\text{x}-\text{xxx}$  of the tincture being administered in repeated doses.

*Carboligni*, in drachm doses has been employed with repeated benefit.

*Carbolic Acid* has, it is stated (*Medical Press*, Jan. 22d, 1868) proved successful.

\* *Chloroform*, in doses of  $\mathfrak{m}\text{v}-\text{viij}$  every hour or half-hour, often arrests the vomiting and relieves the spasms and cramps in the early stages of cholera. When the vomiting is excessive, a little chloroform, on lint, placed over the epigastrium and covered with oiled silk or gutta-percha, will frequently relieve it. Chloroform liniment, alone or with turpentine, diligently used, is very effectual against the spasms and cramps. The spasms are also quickly relieved by chloroform inhalations, stopped short of complete anæsthesia. In giving chloroform internally, some prefer to combine it with the carbonated alkalies, soda or potash (grs. xl-lx) in solution; others, with the oil of turpentine ( $\mathfrak{m}\text{xx}-\text{xxx}$ ). Dr. T. M. LOWNDES, of the Bombay army, advises (*British Medical Journal*, Aug. 29th, 1868) the following formula, which he has used for years in the treatment of choleraic diarrhœa, with the best results:—

581. R.	Chloroformi,	$\mathfrak{m}\text{xv}-\text{xx}$	
	Tincturæ opii,	$\mathfrak{m}\text{v}. \text{xv}$	
	Spiritûs vini,	f. $\text{ʒj}$	
	Aquæ,	f. $\text{ʒj}$ .	M.

Chloroform, as a remedy in cholera, has the advantage that, being very volatile, it does not, like calomel and solid opium, accumulate in the stomach, and thus produce serious effects when reaction is established.

*Hydrargyri Chloridum Mite* has, as Dr. WARING remarks, been given in cholera for upward of half a century, in every variety and stage of the disease, in every gradation of dose, from one grain to sixty, in almost every possible form of combination, with the view, by turns, of obtaining its purgative, or its cholagogue, or its stimulant, or its sedative action, and the reported results have been of the most diversified and unsatisfactory character. Dr. AYRE has reported great success



from the following plan of treatment, which, probably, deserves the preference, if mercury be employed at all:—grs.j-ij of calomel, with ℥ j-v of laudanum, are given every five, ten or fifteen minutes, omitting the latter when the dose has reached 60 or 80 drops. Perhaps a great measure of the success recorded of this treatment is due to the patient being allowed to drink freely of cold water, the colder the better. During the stage of collapse, the fact must not be lost sight of, in administering calomel and other powerful drugs, that the stomach has lost its power of absorption, exposing the patient to all the dangers of an accumulated drug when reaction sets in.

*Ipecacuanha*, as an emetic, at the outset of the attack, forms part of the eliminative treatment recommended by some. Small repeated doses (gr.j-ij every fifteen or thirty minutes, until nausea is felt) have been recently advised. The power of minute doses of *ipecacuanha* to arrest many forms of vomiting is now well known, and would seem to indicate its utility in cholera.

*Nitric Acid*, given in copious draughts of stimulants, has been recommended as an adjunct to treatment.

*Morphia*, hypodermically. Dr. W. BATES relates a case (*Lancet*, August 21st, 1869) treated with success by the subcutaneous use of morphia.

\**Opium*, though still much employed in the earlier stages of the disease, alone or conjoined with the acetate of lead or camphor, or calomel, is no longer regarded, as formerly, as the sheet-anchor in cholera. Its use in the solid form in large and repeated doses, in all stages of the disease, is now nearly abandoned, in consequence of the inutility, and even danger, of its employment. In the liquid form, in very small doses, it frequently arrests the action of other remedies.

*Piper Nigrum* is, it is said, often prescribed in cholera by the natives of India, in the form of an infusion of recently-roasted black pepper. A popular Bengal cholera pill is the following:—

582. R. Pulveris piperis nigri,

Assafoetidæ,

āā

gr.j

Camphoræ,

gr.ij.

M.

For one pill. If given early, it is stated that it frequently arrests the disease.

\**Plumbi Acetas*, in combination with opium, at first proposed by Dr. GRAVES, of Dublin, is very effectual at the outset of cholera in checking the diarrhoea. Dr. FLEMING prefers combining the acetate of lead with a solution of acetate of morphia. Dr. E GOODEVE also prefers administering the acetate in a fluid form, but gives the opium independently. He employs the following:—

583. R. Plumbi acetatis,

Acidi acetici,

Aquæ destillatæ,

grs.xxx

℥x

f.℥vj.

M.

Two to three tablespoonfuls every half-hour or hour. Opium, in doses of one grain, repeated once or twice, is given separately. He limits, as a rule, the quantity of the acetate of lead to grs.x-xv, and of the opium to grs.ij, in the first three hours. If the disease shows signs of yielding, the doses are to be diminished or stopped altogether.

*Potassii Chloras* is frequently employed; it forms part of the "saline treatment" of this disease (see *Salines*).

*Quinine*, though recommended by Dr. BELL and others, as both a curative and prophylactic in cholera, is not often employed, excepting as a tonic in convalescence.



\**Ricini Oleum* is the purgative *par excellence* employed by Dr. G. JOHNSON in the "eliminative treatment." He directs, as early in the premonitory diarrhoea as possible, a tablespoonful of castor oil in a mixture of orange or lemon juice and water, or cold water, or other convenient vehicle. If this be vomited, it should be again given, and the patient directed to lie still and take no more liquid for half an hour, by which time the oil will have passed from the stomach into the bowels. Within an hour or two the oil will usually have acted freely, when a tablespoonful of brandy in thin arrowroot or gruel is given; and if there be much feeling of irritation, with a sense of sinking,  $\text{gtt.v-x}$  of tincture of opium, in cold water. In this manner most cases of choleraic diarrhoea are promptly arrested. Rhubarb ( $\text{gr.xv}$  of the powder, or  $\text{f.3ss}$  of the tincture) may be employed if objections exist to castor oil. If vomiting be present, it should be encouraged by copious draughts of tepid water; and if nausea exists without vomiting, especially if the stomach is supposed to contain congested or unwholesome food or morbid secretions, an emetic is advised ( $\text{gr.xx}$  of ipecacuanha, or a teaspoonful of mustard, or a tablespoonful of common salt). The approval given to this "evacuant system" of treatment by Sir T. WATSON, and the success reported from it in the hands of numerous practitioners, entitle it to consideration and general trial.

*Sodii Carbonas* forms one of the principal ingredients in the "saline treatment" of Dr. WILLIAM STEVENS.

*Sodii Chloridum* was formerly given in large draughts of cold water, with the view of inducing emesis, and at the same time supplying the blood with the saline constituents supposed to be carried out of the system in the evacuations.

*Sulphur* was first suggested as a remedy by Dr. A. BLACKLOCK, of the Madras army, in 1848. He recommended, also, as a prophylactic, during epidemics, sulphur internally, and a diet rich in sulphureted ingredients. Dr. J. GROVE (in his work on epidemic cholera, in 1865) highly praises this remedy, which he prescribes as follows:—

584. R.	Sulphuris præcipitati,		
	Sodii bicarbonas,	āā	℥iv
	Spiritus lavandulæ compositus,		f.℥xxiv
	Aquæ,		f.℥lxxij. M.

The soda and sulphur are to be first thoroughly triturated together, in a mortar, the spirit of lavender gradually added, till the whole is well mixed, when the water is added.

Dose, two teaspoonfuls, in a little water, every two, three or four hours, in simple choleraic diarrhoea; but if the case is urgent, every ten or fifteen minutes. In sudden or severe attacks,  $\text{mxx-xxx}$  of laudanum are given with the first dose.

*Terebinthine Oleum* has been employed internally, as well as externally, with benefit.

*Blood-letting* has its advocates in cholera, who consider that by relieving the pulmonary embarrassment, and freeing the circulation, it increases the excreting power of the intestinal mucous membrane. But if employed, it should invariably be conjoined with the use of stimulants.

\**Ice* in lumps and iced drinks, given *ad libitum*, are grateful to the patient, and highly beneficial in relieving the burning heat at the pit of the stomach, and the intolerable thirst, arresting the vomiting and exciting reaction.

*Salines.* The saline treatment has been already described.



*Stimulants* are useful, but their indiscriminate use is not to be recommended. Champagne, ammonia and turpentine are among the best, but weak brandy-and-water is sometimes retained better than any other stimulant.

*Blisters* are sometimes beneficial, applied, in the collapse of cholera, to the epigastrium, over the heart, etc.

*Turpentine Stupes*, applied hot successively to the abdomen, the cardiac region and along the spine and extremities, and turpentine frictions and enemas, are valuable aids to the other treatment.

\* *Water*, iced, and freely used as a drink, aids whatever mode of treatment may be adopted. Even if rejected for the first four or five times, it should be persevered in, and so soon as it remains on the stomach a change for the better will be observed.

## COLIC.

### SIMPLE FLATULENCE.

CHARLES MURCHISON, M. D., F. R. S., LONDON.

Flatulence will often be relieved by the various ethers and the essential oils of peppermint, anise and cajuput, by vegetable charcoal, galbanum and assafœtida. When, however, it is due to decomposition, from deficient or deteriorated bile, those remedies will be found most useful which act by checking decomposition, such as creasote, turpentine or carbolic acid.

585. R.	Acidi carbolici fluidi,		
	Spiritus chloroformi,	aa	f. ʒi-iiij
	Aquæ menthæ piperitæ,		f. ʒiiij. M.

Dose—A tablespoonful.

Or, a pill containing one drop of creasote.

Flatulence, and other dyspeptic symptoms arising from want of bile in the bowels, are also greatly relieved by the use of purified bile from the ox or pig, which may be given in doses of from three to six grains, about two hours after meals. As it is not desirable that the bile should come in contact with the stomach, it is well to give it inclosed in capsules or in pills coated with a solution of tolu in ether.

The following recipe will be found useful for the same purpose:—

586. R.	Sodæ chloratis,	gr. x	
	Aquæ menthæ piperitæ,	f. ʒss.	M.

For one dose.



## PROF. ROBERTS BARTHOLOW, CINCINNATI,

Has found marked advantage from the use of permanganate of potassa in the flatulence and dyspepsia so constantly attendant on obesity, as follows:—

587. R. Potassæ permanganas, gr.vij  
 Aquæ destillatæ, f.℥ij. M.  
 Keep in a glass-stoppered bottle. Dose—A teaspoonful thrice daily.

## DR. BOUCHUT, PARIS.

588. R. Chloroformi, f.℥ijss  
 Alcoholis diluti, f.℥ijss  
 Syrupi acaciæ, f.℥viij. M.  
 A small wineglassful thrice daily, to persons subject to hepatic colic.  
 Abstinence from fats, oils, fatty food and strong wine.

## DR. TOURASSE, FRANCE.

589. R. Chloroformi, f.℥ss  
 Olei amygdalæ dulcis, f.℥j  
 Syrupi acaciæ, f.℥iiss. M.  
 To be well shaken. A tablespoonful every quarter or half-hour in hepatic colic.

590. R. Magnesii carbonatis, f.℥j  
 Rhei pulveris, gr.xxx  
 Tincturæ rhei, f.℥iij  
 Tincturæ opii, ℥xv  
 Spiritûs anisi, gtt.vj  
 Spiritûs menthæ piperitæ, f.℥ij  
 Aquæ destillatæ, f.℥vj. M.  
 This is a popular remedy in the west of England in intestinal pains.  
 From three to six tablespoonfuls a day

## RÉSUMÉ OF REMEDIES.

- Ammonii Carbonas*, in doses of gr.v–viij in some aromatic water, frequently proves useful, especially in the flatulence of atonic dyspepsia or of hysterical females.
- Anthemis*, in strong infusion, or gtt.ij–iij of the volatile oil, frequently affords relief after the failure of other remedies.
- Assafœtida*, in enema, is of especial value in the flatulent colic of hysteria.
- Cajuputi Oleum* often affords immediate relief.
- Carbo Ligni*, inclosed freshly prepared in gelatine capsules, each containing gr.x of heavy vegetable ivory charcoal (dose, two, *i. e.* gr.xx), is a valuable remedy, from its gas-absorbent property. If administered in this manner, the large nauseous doses so frequently prescribed are avoided.
- Carbolic Acid* is recommended by Dr. KEMPTER in cases accompanied with foul breath.
- Cardamomum*, in the form of the compound tincture, is highly serviceable.
- Carui Oleum* is often of benefit, in doses of gtt.ij–v on sugar.



*Caryophyllum* in infusion, or the volatile oil (gtt.ij-v), is useful.

*Cinnamomum* is a pleasant and excellent carminative.

*Creasotum*, in doses of gtt.j in pill thrice daily, will greatly relieve the distressing flatulence of hypochondriasis.

*Etheris Spiritus Nitrosi*, in doses of a teaspoonful in a cupful of any convenient vehicle, is a popular and efficacious remedy.

*Etheris Spiritus Compositus* is useful, particularly in the flatulence of hysterical females.

*Juniperi Oleum* is an efficient carminative.

*Lavandula*, in the form of the compound tincture, is an agreeable remedy.

*Mentha Piperita Oleum*, with or without a few drops of laudanum, is a pleasant carminative.

*Myristica Oleum*, in doses of gtt.ij-v, affords relief. Grated nutmeg may be given in a little warm brandy-and-water.

*Rutæ Oleum*, in doses of gtt.ij-v on sugar, is a popular remedy; or the infusion of rue may be given.

*Sodii Bicarbonas* is effectual when there is acidity of the primæ viæ.

\**Nux Vomica* is valuable in obstinate flatulence. Dr. BARLOW recommends the following useful formula:—

591. R.	Extracti nucis vomicæ,	gr.iss	
	Argenti nitratis,	gr.ij	
	Extracti lupuli,	gr.xij.	M.

Make six pills. Take one thrice daily. This formula is particularly serviceable when there is also pyrosis and heartburn.

*Terebinthina Oleum* in enema is an excellent remedy.

*Zinci Sulphas* has been recommended in flatulent affections of the bowels, especially of the colon. The following formula has been employed:—

592. R	Zinci sulphatis,	gr.xviii	
	Pulveris opii,	gr.ij	
	Mucilaginis,	q. s.	M.

Make six pills. Take one four or five times a day, after a meal. When the stomach can dispense with the opium, substitute extract of gentian or rhubarb.

*Zingiber* in tincture or effusion (with or without the addition of carbonate of soda and aromatic spirit of ammonia), is of great benefit. A ginger plaster over the epigastrium often admirably relieves colicky pain.

\**Carminatives* act by stimulating the stomach, causing the expulsion of flatus and the relief of the pain produced by its presence.

*Cathartics*. A purgative of castor oil, or of oil of turpentine, frequently affords immediate relief.



## ILEUS.

PROF. A. TROUSSEAU, PARIS.

In this dangerous form of colic, characterized by feculent emesis, when the pain is severe, local blood-letting sometimes lessens the spasm by disgoring the tissues. Prolonged baths are useful. The local application of emollients and narcotics, repeated purgatives, cold baths, or ice to the abdomen, iced drinks and the swallowing of pieces of ice, may all be resorted to. If the tympanitis be very considerable, relief may be afforded by puncture with a fine trocar. Should all other remedies fail, gastrotomy may be performed.

DR. J. COPLAND, LONDON.

This author remarks that, notwithstanding constant or even feculent vomiting, advantage will sometimes be derived from one to two tablespoonfuls of the unrectified oil of turpentine, taken with aromatics. He has seen the vomiting cease and the distention of the abdomen rapidly subside immediately after this dose, which should be repeated if rejected at first.

Large injections of warm flaxseed oil (Oij-iv), steadily and slowly thrown up (regurgitation being prevented by pressing the guard of the pipe against the anus), often prove remarkably successful even after feculent vomiting has come on. The patient should be placed on the right side, with the pelvis elevated, and a ball of linen firmly placed against the anus to prevent the premature return of the injection. This clyster, with the addition of opium, if much exhaustion is present, should be repeated every three or four hours.

A case, accompanied with fecal vomiting, is reported (*Dublin Quarterly Journal of Medicine*, November, 1864) as successfully treated by the application of galvanism to the mucous surface of the intestine. A sponge, with the metallic handle to which it was attached, was passed up the rectum two or three inches, whilst the other sponge was applied to the abdominal walls. The effect was immediate, the constipation being at once relieved and the patient recovering from an apparently hopeless condition.



## PAINTERS' COLIC, LEAD COLIC—COLICA PICTONUM.

## PARIS HOSPITALS.

*Sulphuric acid* is much employed in the Paris hospitals in the treatment of saturnine poisoning, with the most marked success. Mild cases yield in about three days, severe ones in six or seven days.

593. R. Acidi sulphurici diluti, f.ʒij  
Aquæ, Oij. M.

This quantity is given during the day. The stomach soon becomes accustomed to it, even when the first dose or two is rejected. The abdominal pains are relieved after the first or second day, the constipation yielding soon after. This treatment should be combined with the repeated use of sulphur baths.

## DR. LUTZ, PARIS.

594. R. Sulphuris loti, āā ʒiv. M.  
Mellis despumati,

Give an ounce and a half of this electuary three consecutive days in lead colic, then give in doses gradually lessened. On the third day the acute pain has disappeared.

595. R. Chloroformi, f.ʒss  
Alcoholis diluti, f.ʒss  
Mix and add,  
Aquæ, f.ʒviij. M.

To be given as an enema in lead and nervous colics.

596. R. Podophyllin, āā gr.iiij. M.  
Extracti nucis vomicæ,  
Extracti belladonnæ,

Divide into ten pills. One twice or thrice a day, to relieve the painful constipation of workers in lead. At the same time, sulphur baths are to be administered.

## PROFESSOR NIEMEYER.

597. R. Olei ricini, f.ʒij  
Olei tiglij, gtt.iiij. M.

A tablespoonful every two hours in lead colic. The patient also to take in the twenty-four hours three opium pills of from gr.  $\frac{1}{4}$ – $\frac{3}{4}$ . Warm baths, narcotic fomentations, enemata, sometimes purgative, sometimes narcotic.

## RÉSUMÉ OF REMEDIES.

\* *Alum* has long been successfully employed in the treatment of lead colic. From one to two drachms may be given in the course of the day, with a little laudanum, and an occasional dose of castor or croton oil, to



procure one or more motions daily. The following formula has been advised :—

598. R.	Aluminis,	ʒj	
	Acidi sulphurici diluti,	f.ʒj	
	Aquæ,	Oij.	M.

This, sweetened to the taste, should be drunk during the day.  
A grain of opium may be taken at night, and sulphurous baths employed.

*Chloroform* has been given with good results, by the mouth, and by the rectum in enemas, and externally applied, compresses moistened with it, diluted, being placed on the abdomen.

\**Hydrargyri Chloridum Mite*. A full dose of calomel, with or without opium, and followed in a few hours by castor oil and an enema of turpentine, frequently gives great and prompt relief.

\**Opium*, in full doses (gr. j–ij), alone or combined with alum or calomel, and followed by castor oil, is a most useful remedy, its administration being repeated until relief is obtained. The hypodermic injection of morphia is advisable in severe cases.

*Strychnia* has been recommended, but should be used with caution, especially in acute cases.

## CONSTIPATION—HABITUAL.

The habit of constipation may be broken up by *massage*, *change of diet*, *enemata*, *laxative mineral waters*, or *drugs*.

In regard to *massage*, or the movement cure, the following little operation executed by the patient upon himself, when properly performed, is valuable :—

Place the tips of the fingers of the right hand exactly over the cæcal region, with *very slight* pressure; carry them upward, along the ascending colon, to the right hypochondrium; continue the movement *without any intermission* over the region of the transverse colon to the angle of junction with the descending colon; stop not, but proceed downward, gently and steadily, to the iliac region of that side; instead of the previously very gentle pressure, the finger must now be pressed firmly and deeply (without pain) into the pelvic cavity, and there retained for about fifteen seconds, then remove the hand altogether, rest a few seconds, and repeat the procedure. This may be continued for the period of from a few minutes to a quarter of an hour or more. Some little care and tactile dexterity are needed to do this properly; and where the hand is dry, or the cuticle thick and hard, it is advisable to slightly moisten the ends of the fingers. When the right hand is tired, the left can be used, and so alternately, but it is better not to alternate



them too rapidly. If there be failure, it must not necessarily be given up. Invalids themselves will often fail, almost invariably, if their bowels be *extremely intractable*. But now the aid of a friend for passive movements may be invaluable. The medical adviser can give instructions regarding the precise anatomical relations of the parts involved, and the method of performance. The proceeding should usually extend over a period of from five or six minutes to occasionally twenty-five minutes.

For occasional use, in the treatment of *constipation in old age*, the following pill affords an excellent formula :

599. R. Extracti colocynthidis compositi, gr.v-viij  
 Extracti hyoscyami, gr.ij. M.  
 For one pill.

J. M. DA COSTA, M. D., PHILADELPHIA.

600. R. Podophyllin, aa gr.j  
 Extracti belladonnæ, gr.v  
 Capsici, ʒj. M.  
 Pulveris rhei,  
 For twenty pills. One three times a day.

Belladonna is undoubtedly a stimulant to the muscular fibres of the intestines. It acts on them as it acts on the bladder ; it stimulates to contraction. It also increases the action of purgatives, enabling the physician to get along with smaller quantities of purgative medicine. Podophyllin is useful in torpor of the upper portion of the bowel, to increase the secretion of the liver.

601. R. Tincturæ gentianæ compositæ, f.ʒiij  
 Tincturæ rhei dulcis, f.ʒj  
 Tincturæ belladonnæ, f.ʒiiss M.  
 Dessertspoonful thrice daily.

602. R. Extracti gentianæ, ʒj  
 Extracti nucis vomicæ, aa gr.ijss  
 Podophyllin, gtt.xx. M.  
 Olei cajuputi,  
 For twenty pills. One twice a day as a tonic for chronic constipation.

603. R. Extracti belladonnæ, gr.iiss  
 Pulveris rhei, gr.xxiv.  
 Pulveris zingiberis, gr.xij. M.  
 For twenty-four pills. One four times a day.

S. S. BIRCH, M. D., LONDON.

604. R. Extracti rhei Alcoholici, ʒss  
 Extracti taraxaci, gr.xxiv  
 Quiniæ sulphatis, gr.ij. M.  
 Divide into twelve pills.



One should be taken either on rising in the morning or at dinner-time, or even at both periods when the constipation is very obstinate. This is a very gentle stomachic and tonic evacuant, particularly useful for the delicate. In addition, when there is torpor of the liver, deficiency or perversion of the biliary secretion, the patient should be ordered:—

605. R. Hydrargyri cum cretâ, gr. ʒj  
Sacchari albi, gr. v. M.  
For one powder.

This is a sufficient dose, when given alone at bedtime, for two or three successive nights, or in very sensitive persons every second or third night. But the hydrargyrum cum cretâ is often prepared imperfectly, and then causes considerable annoyance and dissatisfaction to the practitioner.

PROF. ROBLEY DUNGLISON.

606. R. Magnesiae sulphatis, ʒj  
Potassae bitartratis, ʒj  
Ferri sulphatis, gr. x. M.  
For one powder. Add to a quart of water and take a wineglassful, on rising, every morning.

This recipe was frequently recommended in his lectures by the late distinguished professor of physiology.

JOHN FORSYTH MEIGS, M. D.

607. R. Confectionis sennæ, ʒj  
Potassae bitartratis, ʒj  
Sulphuris præcipitati, āā ʒj  
Ferri subcarbonatis, q. s. M.  
Mellis despumati,  
Make an electuary. Teaspoonful after meals.

PROF. METCALF, M. D., OF NEW YORK.

608. R. Extracti aloës (purif.), āā ʒj  
Extracti hyoseyami, gr. xij  
Extracti nucis vomicæ, gtt. x. M.  
Olei anisi,  
Divide into sixty pills. One to be taken after each meal, particularly for constipation in women.

THOMAS HAWKES TANNER, M. D., F. L. S., LONDON.

609. R. Zinci valerianatis, gr. xij-xxiv  
Extracti belladonnæ, gr. iij-vj  
Extracti gentianæ, gr. xxiv. M.  
Make twelve pills and silver them. One to be taken three times a day in nervous cases of habitual constipation, and in spasmodic contraction of the sphincter ani.



PROF. W. H. VAN BUREN, M. D., OF NEW YORK.

- |         |                        |       |    |
|---------|------------------------|-------|----|
| 610. R. | Extracti aloës,        | 3ss   |    |
|         | Extracti nucis vomicæ, | gr.vj |    |
|         | Extracti hyoscyami,    | ʒj    |    |
|         | Pulveris ipecacuanhæ,  | gr.j. | M. |

Divide into twenty pills. One to be taken at night.

This recipe, termed the "Pil. salutis," is of special value in the constipation of females.

DR. J. COPLAND, LONDON.

- |         |                       |        |    |
|---------|-----------------------|--------|----|
| 611. R. | Potassii bitartratis, | 3j     |    |
|         | Sodii boratis,        | 3iss   |    |
|         | Sulphuris loti,       | 3vj    |    |
|         | Confectionis sennæ,   | 3iss   |    |
|         | Syrupi zingiberis,    | f.3vj  |    |
|         | Syrupi,               | f.3ij. | M. |

A teaspoonful or a dessertspoonful of this laxative electuary in the evening, at bedtime.

- |         |                       |       |    |
|---------|-----------------------|-------|----|
| 612. R. | Potassii bitartratis, | 3j    |    |
|         | Sulphuris loti,       | 3ss   |    |
|         | Mellis despumati,     | 3iij. | M. |

A teaspoonful once or twice a day, in habitual constipation.

It has been observed that aloes is useful in habitual constipation due to atony of the colon, the result of fever and debilitating diseases, old age or sedentary habits. It may be combined, as indicated, with aromatics, hyoscyamus, ipecacuanha, nux vomica or quinine. Dr. SPENDER recommends (*Medical Times and Gazette*, February 19th, 1870) the following pill:—

- |         |                     |            |    |
|---------|---------------------|------------|----|
| 613. R. | Extracti aloës aq., | gr.ss-j.   |    |
|         | Ferri sulphatis,    | gr.iss-ij. | M. |

For one pill, to be taken thrice daily, immediately after the principal meals, and continued regularly for a few days till the occurrence of the first loose motion, after which one only is to be taken night and morning. At the end of a week or two another pill may be omitted, and within a month a single pill once or twice a week suffices.

Nothing approaching purgative ought ever to be permitted. Profs. METCALF and VAN BUREN both combined aloes with hyoscyamus and nux vomica.

DR. J. CLELAND, EDINBURGH.

This author highly recommends the saccharate of lime. He first introduced it, through the *Edinburgh Medical Journal*, August, 1859, to the profession. He prepares it as follows:—



614. R. Slake of quicklime,  $\frac{3}{4}$ viiij  
 Rub up with it of white sugar,  $\frac{3}{4}$ v  
 Add of water, f.  $\frac{3}{4}$ xx. M.

Stir and filter. The product should be perfectly clear, with only a slightly yellowish tinge. Each ounce, by weight, should contain 18 grains of lime. Dose— $\mathfrak{m}\mathfrak{xv}$ — $\mathfrak{x}\mathfrak{x}\mathfrak{x}$ , or f.  $\frac{3}{4}$ j.

Dr. C. finds this saccharate of lime a very valuable means of overcoming gradually that chronic constipation which so frequently accompanies dyspepsia, and that persons who for years have been in the constant habit of using aperient medicines have been able to abandon them, in a great measure, after taking this remedy for some time.

## DR. MIALHE, PARIS.

615. R. Sulphuris loti,  $\mathfrak{z}$ ijss  
 Magnesii carbonatis,  $\mathfrak{z}$ v  
 Mellis despumati,  $\mathfrak{z}$ xv. M.

A teaspoonful in the morning before eating.

616. R. Extracti belladonnæ, gr.v  
 Rhei pulveris,  $\mathfrak{a}\mathfrak{a}$   
 Aloës socotrinæ,  $\mathfrak{a}\mathfrak{a}$  gr.xv. M.

Divide into twelve pills. One or two in the evening, at bedtime, every other day, in habitual constipation.

617. R. Aloës socotrinæ,  $\mathfrak{a}\mathfrak{a}$   
 Rhei pulveris,  $\mathfrak{z}$ ij  
 Pulveris aromatici,  $\mathfrak{z}$ ss  
 Saponis,  $\mathfrak{z}$ j  
 Syrupi, q. s. M.

Divide into sixty pills. Two in the evening, in the habitual constipation of dyspeptics.

Or,

618. R. Aloës socotrinæ,  $\mathfrak{a}\mathfrak{a}$   
 Rhei pulveris,  $\mathfrak{z}$ j  
 Ipecacuanhæ pulveris,  $\mathfrak{a}\mathfrak{a}$   
 Saponis,  $\mathfrak{z}$ ss. M.

Divide into thirty pills. One or two in the evening.

## DR. CONTARET, FRANCE.

619. R. Extracti belladonnæ,  $\mathfrak{a}\mathfrak{a}$   
 Extracti rhei, gr.vij  
 Althæa pulveris, q. s. M.

Divide into twenty pills. One three hours after dinner, in habitual constipation.

## DR. C. PAUL, PARIS.

620. R. Podophyllin, gr.v  
 Mellis, q. s. M.

Divide into ten pills. One at bedtime, in habitual constipation. Podophyllin can be employed for a long time, without losing its efficacy, and its purgative effects are not followed by consecutive constipation.



621. R. Sulphuris loti,  
Magnesiæ,  
Sacchari lactis,                      āā      ʒiʒss.      M.

Mix with care. Persons subject to constipation will take a teaspoon-  
full of this laxative powder at bedtime, from time to time.

- |      |    |                             |       |    |
|------|----|-----------------------------|-------|----|
| 622. | R. | Sodii sulphatis exsiccatae, | 3ij   |    |
|      |    | Saponis pulveris,           | 3iv   |    |
|      |    | Mellis despumati,           | q. s. | M. |

Divide into four suppositories. Useful in habitual constipation. They are to be oiled before introduction into the rectum.

## RÉSUMÉ OF REMEDIES.

*Aloes.* (See above.)

\**Belladonna* is highly recommended by TROUSSEAU, who obtained from it the happiest result, given as follows:—

623. R. Extracti belladonnæ, gr.  $\frac{1}{24}$  -  $\frac{1}{6}$   
Extracti gentianæ. gr. j - ij. M.

For one pill, to be taken every morning at rising.

Prof. DA COSTA recommends belladonna as a stimulant to the muscular folds of the intestine, and as increasing the effect of purgatives.

*Benzoini Tinctura*, in doses of gtt.xx thrice daily, is said, in cases of constipation apparently depending upon stricture of the colon, to keep up the peristaltic action without irritating the bowels,

*Colchicum*, in doses of gtt.v of the tincture of the root several times daily, has been highly recommended in obstinate constipation.

*Colocynth.* Dr. CRICHTON recommends (*British Medical Journal*, November 28th, 1868) the Prussian tincture of colocynth, in doses of ℥v-x in a little water, taken about an hour before breakfast, as an efficient remedy. The formula of the Prussian tincture is as follows:—

624. R. Colocyntidis pulpæ,                 ℥j  
Illicii anisati,                                 ʒij  
Alcohol,   f. 3xx.         M.

Dr. BIRCH recommends colocynth combined with hyoscyamus, in the constipation of old age.

*Fel Bovinum Purificatum.* When there is torpidity of the liver and deficiency of the biliary secretion, ox-gall may prove useful by supplying the deficiency. Either of the following formulæ may be used:—

- |      |    |                        |       |    |
|------|----|------------------------|-------|----|
| 625. | R. | Fel bovini purificati, | 3ij   |    |
|      |    | Olei carui,            | ℥x    |    |
|      |    | Magnesiae carbonas,    | q. s. | M. |

Make thirty-six pills. Take two twice daily.

Or,

626. R. Fel bovini purificati,  
Pilulæ assafoetidæ compositæ, āā gr. xxx  
Extracti aloës, gr. xx  
Saponis duris, gr. x  
Pulveris ipecacuanhæ, gr. viij. M.

Make thirty pills. Take one to two daily, before dinner.



*Ferri Carbonas* has not, in the opinion of Dr. GRAVES, been duly appreciated as a remedy in habitual constipation. He has succeeded in curing with it alone a patient who had long been subject to extreme constipation, and who had been reduced to the necessity of taking an immense dose of purgatives almost every week.

*Magnesia Sulphas*, in small, frequently-repeated doses, with the addition of a few drops of diluted sulphuric acid, will sometimes subdue obstinate constipation after the failure of other means. Combined with sulphate of iron and bitartrate of potassa, it was a favorite prescription of the late Prof. ROBLEY DUNGLISON.

*Nitrici Acidum*, in the opinion of Dr. GRAVES, is a very reliable remedy in habitual constipation, and combines tonic with aperient qualities.

*Pix Liquida*, persevered in for some time, often effectually removes habitual constipation.

*Podophyllin* is useful when there is torpor of the upper portion of the bowel.

*Rheum.* Dr. F. W. PAVY recommends the following pill in habitual constipation:—

627. R. Pilulæ rhei comp., gr.ij-ijj  
Pulveris capsici, gr.j. M.

To be taken *with the food*, and repeated daily, as occasion requires.

In the constipation of anæmic females Dr. ASHWELL recommends the following mixture:—

628. R. Pulveris rhei, aa ʒss  
Magnesii carbonatis, ʒss  
Confectio aromatica, gr.xx  
Aquæ cinnamomi, f.ʒix  
Tincturæ cardamomi compositæ, f.ʒj. M.

Make a drink. To be taken at bedtime, every three or four days.

Dr. BIRCH advises it combined with taraxacum and quinine, and Professor DA COSTA combined with belladonna and ginger.

*Ricini Oleum* is one of the best purgatives which can be employed in habitual constipation, acting speedily, without much griping, and causing less subsequent constipation than any other purgative given to remedy this state.

*Senna*, particularly in the form of confection, is a mild, efficient purgative, causing little excitement, and leaving no subsequent constipation. Dr. JOHN FORSYTH MEIGS combines it with bitartrate of potassa, sulphur, and subcarbonate of iron.

\**Nux Vomica* is often of equal benefit. Dr. COPLAND recommends the following pills:—

629. R. Extracti nucis vomicæ, gr.ijj  
Extracti colocynthis compositæ, ʒii  
Saponis castiliensis, gr.xij. M.

Make twelve pills. Take one every other night for a few weeks.

*Veratrum Viride*, in doses of gtt.ijj of the tincture four or five times daily, is said (*Practitioner*, November, 1868) to be useful in some cases of obstinate constipation.

*Zinci Valerianas* is recommended by Dr. TANNER in nervous cases of habitual constipation, combined with belladonna and gentian.

*Electricity.* Dr. ALTHAUS reports (*Lancet*, November 16th, 1865) several cases of habitual constipation which yielded readily to faradization of the bowels after the failure of other remedies, but in the hands of LECLERC electricity is rarely or never of service in these cases.



## DIARRHŒA AND DYSENTERY.

WILLIAM AITKEN, M. D., EDINBURGH.

630. R. Salicin, gr.v.  
For one powder. To be taken every four or six hours.

In case of diarrhœa with clear tongue, which will not yield to opiates, astringents, or stimulants, either singly or combined, and which, probably, depend on a want of tone in the intestine. In these cases the above recipe has often stopped a diarrhœa that appeared fast hurrying the patient to his grave.

One general rule may be acted on in the cure of diarrhœa, which is, that in the adult, whatever be the form of the diarrhœa, if the stools be dark at first, and then become light-colored, purgative medicines are no longer beneficial, and in no instance ought they to be continued longer than is sufficient to remove any irritative substance accumulated in the alimentary canal.

J. M. DA COSTA, M. D., PHILADELPHIA.

631. R. Bismuthi subnitrat̃is, ðj  
Acidi tannici,  
Pulveris ipecacuanhæ compositæ, āā gr.iiij. M.  
For one powder. To be taken three times a day in chronic dysenteric diarrhœa.

It is particularly in cases in which there exists persistent irritability of the bowels, influenced by the taking of much food which cannot be digested, and in which there are gastric symptoms in connection with the dysenteric affection, that the subnitrate of bismuth will be found very serviceable. In order that it shall produce an effect, it is necessary that it shall be administered in sufficiently large doses, not less than twenty grains. The dose may gradually be increased to a drachm.

THOMAS HILLIER, M. D., F. R. C. P., LONDON, ETC.

632. R. Acidi gallici, gr.xij  
Tincturæ cinnamomi, f.ʒiiss  
Tincturæ opii, ℥viij  
Aquæ carui, q. s. ad. f.ʒij. M.  
Dose—Two teaspoonfuls for a child two years old, with chronic diarrhœa and irritable stomach.

633. R. Olei ricini, f.ʒij  
Pulveris acaciæ, ʒj  
Tincturæ opii, ℥viij  
Syrupi, f.ʒij  
Aquæ carui, q. s. ad. f.ʒij. M.  
Dose—A tablespoonful for a child six years old.



A useful oleaginous mixture in dysenteric diarrhœa.

W. KEMPSTER, M. D., UTICA, N. Y.

634. R. *Acidi carbolic*, gr. j  
*Aquæ*, f. ʒj M.

This is the strength of the standard house solution in the State Lunatic Asylum at Utica, New York. Of this a dessertspoonful is given thrice daily, in case of sluggishness of the bowels accompanied by offensive breath. Diarrhœa produced by eating unripe fruit, or other articles which promote fermentation, is relieved by combining a drachm or two of the solution with the usual remedies. When a fetid smell emanates from the cutaneous surface, order a warm bath, and then wash the surface with a solution, gr. v--f. ʒj.

JOHN FORSYTH MEIGS, M. D.

635. R. *Pulveris opii*, gr. vj  
*Extracti nucis vomicæ*, gr. iij  
*Cupri sulphatis*, gr. j. M.

Divide into twelve pills. One three times a day, in chronic diarrhœa.

The value of this pill has been proved by army surgical experience.

CHARLES MURCHISON, M. D., F. R. C. S., ETC.

636. R. *Acidi tannici*, ʒiv  
*Tincturæ opii*, ℥xl  
*Glycerinæ*, f. ʒss  
*Aquæ menthæ piperitæ*, ad. f. ʒiv. M.

A tablespoonful in a tablespoonful of water every four hours.

After the diarrhœa is checked order :—

637. R. *Acidi nitro muriatici*, f. ʒiss  
*Tincturæ opii*, ℥xl  
*Syrupi*, f. ʒss  
*Aquæ*, ad. f. ʒiv. M.

A tablespoonful in water, four times a day.

DR. JEANNEL, PARIS.

638. R. *Cinchonæ flavæ pulveris*,  
*Calcii phosphatis precipitatæ*, āā ʒiv  
*Aurantii amari corticis pulveris*, ʒss  
*Confectionis rosæ*, ʒijss  
*Syrupi*, q. s. M.

Make an electuary, of which give a teaspoonful or tablespoonful several times a day in diarrhœa.

DR. BOSSU, PARIS.

639. R. *Extracti opii*, gr. iss  
*Hydrargyri chloridi mitis*,  
*Ipecacuanhæ pulveris*, aa gr. iij  
*Confectionis rosæ*, q. s. M.

Divide into ten pills. One morning and evening in chronic diarrhœa. Roast meat at the meals, exercise in the open air.



640. R. Bismuthi subnitrat̃s, ʒj  
Cinchonæ flavæ pulveris, ʒss  
Carbonis ligni, ʒj. M.

Divide into twenty powders. One twice or three times a day, between meals, in chronic diarrhœa.

DR. DELIOUX, FRANCE.

641. R. Bismuthi subnitrat̃s, ʒiv  
Rhei exsiccatã, gr.xxv  
Simarubæ pulveris, ʒss. M.

Divide into ten powders. One twice or thrice a day in chronic diarrhœa.

642. R. Cretæ præparatã, aa ʒijss  
Bismuthi subnitrat̃s, aa ʒijss  
Pulveris opii, gr.ijj. M.

Divide into ten powders. One an hour before each of the principal meals, in chronic diarrhœa.

RÉSUMÉ OF REMEDIES.

*Camphor* is regarded by Dr. RINGER as one of the most efficacious of remedies in summer diarrhœa, but it must be employed at the very commencement of the disease, or it will fail of its effect.

*Capsicum* is regarded by Dr. COPLAND as almost a specific in diarrhœa arising from putrid matters in the intestines, and especially when occasioned by fish.

*Carbolici Acidum* has been recommended in the diarrhœa caused by eating unripe fruit, etc.

*Ipecacuanha* is often of benefit after other remedies have proved useless.

*Leptandrin* is valuable when the stools are destitute of bile and the mucous membrane is irritable. In such cases, the stools under its use are said to assume their natural color and consistence.

*Limonis Succus* is sometimes found of service.

*Linum*. The infusion of flaxseed is an excellent demulcent in diarrhœa.

*\*Opium* is a most valuable remedy in diarrhœa. In cases due to the ingestion of indigestible food, etc., an aperient should be first given, to remove the irritating matter, then, if the diarrhœa persist, opium, in mixture or pill, or enema, will often arrest it. Dr. WARING recommends in the so-called summer or autumnal diarrhœa the combination of laudanum (℥x-xx), with dilute sulphuric acid (℥xv-xx), as often successful.

*Plumbi Acetas* proves useful in many forms of diarrhœa.

*Quassia* has been recommended in the advanced stages of diarrhœa.

*\*Rheum* is often of great benefit, by its property of first removing irritant matters from the bowels, and then acting as an astringent and tonic. The following is an excellent formula for general use, which by itself will often effect a cure:—

643. R. Pulveris rhei compositus, ʒj  
Sodii carbonatis, gr.xx  
Tincturæ opii, ℥x-xxv  
Aquæ menthæ piperitæ, f.ʒx. M.

Make a drink. If after its operation the diarrhœa continues, chalk mixture and opium may be given.



*Sodii Bicarbonas*, in full dose (Ḑij-3j), combined with tincture of ginger (f.3ss-f.3j) and aromatic spirits of ammonia (f.3ss-f.3j) and a little laudanum, is of great service in diarrhœa attended with colic and gastric irritability and flatulence, especially when this is consequent on the ingestion of unwholesome food.

*Emetics*. An ipecacuanha emetic, repeated once or twice, according to circumstances, often arrests a diarrhœal discharge.

*Enemata* are often of great service, either mucilaginous or containing opium, ipecacuanha or astringents.

## SUBACUTE AND CHRONIC DIARRHŒA.

*Alum*, in doses of 3ss-3j daily, or in enema (Ḑj-vi), is often of benefit in diarrhœa dependent upon a relaxed condition of the mucous intestinal membrane. The following formula is useful:—

644. R.	Aluminis,	gr.x	
	Pulveris kino compositus,	gr.v	
	Confectionis rosæ,	q. s.	M.
Make pill. Take every sixth hour.			

*Argenti Nitras* is of service in chronic diarrhœa when the stools are watery or mucous.

*Arsenic* is highly spoken of by Dr. RINGER in chronic diarrhœa. He gives one to two minims of FOWLER'S solution before each meal.

*Benzoin* has been recommended.

\**Bismuthi Subnitras*, in doses of not less than twenty grains, is recommended by Professor DA COSTA in chronic diarrhœa where there exists persistent irritability of the bowels. Professor BRID also prescribes it.

*Calcis Carbolas*, in one-grain doses, combined with henbane, has been successfully employed by Dr. HABERSHON (*Lancet*, January 4, 1868) in diarrhœa attended with flatulent distention of the colon.

*Calcis Phosphas*, in doses of gr.j-ij, several times a day, is praised by Dr. RINGER as of great value in chronic diarrhœa, effecting both a general and local improvement.

*Carbazolate of Ammonia*, in grain doses, thrice daily, has proved successful in very chronic cases.

*Cascarilla* is much used in Germany in the advanced stages of diarrhœa.

\**Catechu*, when there is no inflammatory action, is useful (in doses of gr.x-xv of the compound powder, or f.3j-ij of the infusion) in diarrhœa depending upon a relaxed state of the mucous membranes of the intestinal canal.

*Cetraria Islandica*, in the form of decoction or jelly, is a useful tonic and nutritive aliment in convalescence from diarrhœa.

*Cinnamomum*, in combination with chalk and opium, is often of benefit in chronic diarrhœa.

*Creasotum* is occasionally effectual. The following formula may be used:—

645. R.	Creasoti,	ʒj-iv	
	Spiritûs ammoniæ aromatici,	ʒxv	
	Aquæ,	f.3iss.	M.

When there is much pain paregoric may be added.



\**Cupri Sulphas*, combined with opium, is often very serviceable. Dr. WARING recommends the following formula:—

646. R. Cupri sulphatis, gr. ¼-ss  
Pulveris ipecacuanhæ compositus, gr. v. M.

Make powder. Take thrice daily.

Dr. JOHN FORSYTH MEIGS combines it with opium and nux vomica, Dr. TANNER, with opium and gentian.

*Cuspariæ Cortex* may be given with advantage in the latter stages of diarrhœa.

*Ergot*, in doses of gr. v thrice daily, has been employed, with marked improvement, when dysenteric symptoms were coming on.

*Ferri Pernitratiss Liquor*, in doses of gtt. x-xv thrice daily, is a valuable astringent and tonic.

*Ferri et Potassii Tartras*. The following formula is recommended by Dr. E. GOODEVE in chronic diarrhœa attended with anæmia:—

647. R. Ferri et potassii tartratis, ʒj-ij  
Tincturæ opii, f ʒiss-ijj  
Aquæ cinnamomi, f ʒiv. M.

A tablespoonful in water thrice daily.

*Galla*, in doses of gr. x-xx of the powder, several times a day, is occasionally useful in chronic diarrhœa.

*Hæmatoxyllum*, in decoction, or in the form of an extract (gr. x-xxx), is a useful astringent and tonic after active inflammation has subsided. Dr. F. W. PAVY recommends in chronic diarrhœa the formula for extract of logwood advised for the diarrhœa of phthisis.

\**Kino*, in doses of gr. xij-xx, with or without opium, is a valuable astringent in chronic diarrhœa, especially that connected with follicular derangement. It is also frequently prescribed even when febrile symptoms are present.

*Krameria* is much employed by Spanish physicians in chronic diarrhœa, and is especially useful when the stools are mucous and slimy, and when there is no inflammatory action.

*Matico*, in infusion, is usually of benefit in chronic diarrhœa.

*Muriatic Acid*, combined with tincture of nux vomica, and given before meals, is found of benefit, by Dr. WILLIAM FOX, in the nervous disorder of digestion associated with diarrhœa.

*Myristica*, in mild cases of asthenic diarrhœa, is recommended by Dr. PEREIRA as a substitute for opium, with warm brandy-and-water (if not contra-indicated) as a vehicle.

*Nitrici Acidum Dilutum*, in doses of gr. v-xv, combined with laudanum (m xv-xx) in a little vegetable infusion, has been recommended in chronic diarrhœa.

\**Opium* is frequently given, alone or in combination with other remedies.

*Plumbi Acetas*, by the mouth or in the form of an enema, is often an effectual remedy.

*Potassii Chloras* is recommended by Dr. COPLAND in chronic mucous diarrhœa with whitish, grayish or mucilage-like stools, arising from the absence of bile, etc. He combines it with pulvis tragacanthæ compositus and aromatics, with great benefit.

*Granati Fructus Cortex*, in decoction, is recommended by Dr. WARING in



chronic diarrhœa unattended by inflammatory action. It is particularly useful in diarrhœa consequent on debilitating diseases.

*Quercus Cortex*, in decoction, is sometimes serviceable. Acorns, roasted and powdered, have also been used.

\**Nux Vomica* is highly praised by Prof. GRAVES in obstinate chronic diarrhœa which resists ordinary remedies, and in that form especially which accompanies exhaustion after fevers. It may be combined with opium and sulphate of copper.

*Salicin*, in cases of chronic diarrhœa dependent on want of tone, is recommended by Dr. AITKEN.

*Tannin*, with opium, sometimes proves of surprising efficacy in cases of chronic diarrhœa which have resisted all ordinary treatment, and which are not dependent on obstructive disease of the heart or liver. It is especially useful where there is an irritable, weakly mucous membrane. It may be given in the form of a pill or mixture.

*Turpentine Stupes*, applied to the whole abdomen and allowed to remain on as long as the patient will endure them, are often of great benefit.

*Tormentilla*, in decoction, is frequently of service in the advanced stages of diarrhœa, when inflammatory action has been subdued.

*Zinci Oxidum*, in doses of gr.ij- $\nu$  thrice daily, has been recommended by Dr. WARING-CURRAN.

*Zinci Sulphas*, combined with ipecacuanha and opium, occasionally proves of advantage.

*Blisters*. A small blister to the abdomen is often very effectual in obstinate subacute diarrhœa.

## DYSENTERY, ACUTE.

DR. CARL SCHWALBE, OF COSTA RICA.

In the *Deutsches Archiv für Klinische Medicin*, March, 1875, this writer gives a very judicious treatment of acute dysentery as it occurs in hot climates, by pursuing which he had the good fortune not to lose a case. He advises, whenever a diarrhœa sets in during a heated term, or immediately after a marked fall in the temperature, to suspect the possibility of dysentery, and at once to administer a large enema of *lukewarm water*, 100° Fah., after it has been thoroughly boiled. This should be repeated until one and a half to two gallons have been thrown up and the colon thoroughly emptied. After the onset of the dysenteric symptoms, these copious clysters should be repeated thrice daily. Against the tenesmus, when very annoying, Dr. SCHWALBE uses:—

648. R. Atropiæ sulphatis,  
Aquæ destillatæ,

gr. j  
f. ʒj.

M.

Two or three drops every half-hour, in water, until the pupil enlarges and the throat feels dry.



When there is much intestinal pain the following recipe proves of value:—

649. R.	Acidi muriatici diluti, Morphiæ sulphatis, Aquæ destillatæ,	f.ʒij gr.ij f.ʒij.	M.
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A teaspoonful three or four times daily.

Mustard plasters should be applied to the abdomen. The diet should be fluid and nutritious. White-of-egg water, made by shaking thoroughly the whites of four eggs in a pint of boiled and cooled water, is especially serviceable.

PROF. W. C. MACLEAN, M. D., OF ENGLAND.

*Ipecacuanha* should be administered in large doses as early in the disease as possible. From grs.xxv to xxx should be given in as small a quantity of fluid as possible. Some advise the administration half an hour previously of ℥.xxx of laudanum, or a few drops of chloroform. The patient should be kept perfectly still in bed, and abstain from fluid for at least three hours. If thirsty, he may suck a little ice, or may have a teaspoonful of cold water. Under this management, nausea is seldom excessive, and vomiting rarely troublesome, usually not setting in until two hours after the medicine has been taken. *Sinapisms* or *turpentine stupes* should be affixed to the abdomen. In from eight to ten hours, according to the urgency of the symptoms and the effect produced by the first dose, *ipecacuanha*, in a reduced dose, should be repeated, with the same precautions as before. The effects of this treatment are surprising, and soon manifest; the tormina and tenesmus subside, the motions quickly become feculent, blood and slime disappear, and often, after profuse action of the skin, the patient falls into a tranquil sleep, and awakens refreshed. The treatment may require to be continued for some days, the medicine being given in diminished doses, care being taken to allow a sufficient interval to admit of the patient taking some mild nourishment suited to the stage of the disease. As the disease abates, the dose should be reduced, but it is well to administer grs.x-xij at bedtime for a night or two, after the stools are, to all appearance, healthy.

*Fomentations*, *turpentine stupes*, or *chloroform liniment* to the abdomen, lessen tormina and diminish suffering. If a little diarrhoea without the dysenteric odor remain, it may be checked with



a small quantity of an astringent mixture; but *astringents*, in any shape, during the acute stage, are not only useless but dangerous.

The *hot bath* is of great service in the mild forms of dysentery. It should be brought to the bedside, and kept at a high temperature, the patient remaining in until he feels faint. He should then be quickly and carefully dried, put to bed, and given ipecacuanha (gr.xv-xx), which may require to be repeated in eight or ten hours, the patient abstaining from all fluid for some hours after taking the medicine, and turpentine stupes being applied to the abdomen. This simple form of treatment, if it be resorted to early, will suffice in a great many cases of the mild form of dysentery which follows chills without much charging the system with malaria.

Dr. MACLEAN condemns *blood-letting* in dysentery, for the following reasons:—1. Because, although from the violence of the symptoms there is an appearance of *power*, this is deceptive, for alarming depression often follows free depletion. 2. Even where the measure appears to relieve the symptoms, the heart's action is weakened to such an extent that congestion of the affected mucous membrane remains, a condition nearly as destructive to the tissues as the more acute action. 3. Because convalescence after bleeding is tedious. 4. Because, although bleeding has fallen into disuse, the mortality from dysentery has decreased. Ipecacuanha has superseded the lancet.

In *malarial* dysentery, *quinine*, in full doses, should be given, not less than a scruple, in solution, some time before commencing ipecacuanha (which should be given as recommended above), and it should be repeated until cinchonism is induced; the two drugs should then be given in alternate doses until the characteristic effects of both are produced.

Many others have testified to the value of massive doses of ipecacuanha in dysentery.

DR. PARIS, PARIS.

650. R.	Iodinii,	gr. ix	
	Potassii iodidi,	gr. xv	
	Aquæ destillatæ,	f. ʒij.	M.

To be employed as an enema in dysentery. It is sometimes necessary to administer it twice in the course of the twenty-four hours, and to continue its use several days. One of the principal effects of the iodine enema is to relieve promptly the tenesmus.



## RÉSUMÉ OF REMEDIES.

*Argenti Nitras*, in doses of gr.ss-iss daily, reduced to fine powder, and conjoined with Dover's powder in the form of pill, is highly recommended by Dr. WARING and others in the advanced stages of acute dysentery.

*Ergotin*, in doses of gr.vj in emulsion, or in bland enema (gr.xij-xv), has been used with excellent results by Dr. GROS (*Practitioner*, November, 1868). One of the effects noted under this treatment was the speedy reduction in the quantity of blood voided.

*Hydrargyrum*, formerly always resorted to, in large doses, in acute dysentery, has now fallen into comparative disuse, except as an occasional aperient, and ipecacuanha has taken its place. Particularly in the asthenic and scorbutic forms of dysentery, mercury in every form should be avoided. If, in exceptional cases of acute dysentery, it be employed, the following formula, for many years very generally used in Southern India, may be given:—

651. R.	<i>Pilulæ hydrargyri</i> ,	gr.ij-iiij	
	<i>Pulveris ipecacuanhæ radicis</i> ,	gr.i-ij	
	<i>Opii</i> ,	gr.¼.	M.

Make pill. Take one every four or five hours.

The following is also an effectual combination:—

652. R.	<i>Hydrargyri chloridi mitis</i> ,	gr.ss	
	<i>Morphiæ sulphatis</i> ,	gr.¼	
	<i>Quinæ sulphatis</i> ,	gr.ij.	M.

Make pill. Take one every two or three hours.

\**Ipecacuanha*, justly called "radix anti-dysenterica," is of the highest value in dysentery. Although from its introduction (by Piso, in 1658) its power in this disease has been more or less recognized, it was not, in consequence of the practice of conjoining it with other remedies supposed to possess similar virtues, until 1858 that its real value was demonstrated by Mr. DOCKER (*Lancet*, July and August, 1858), who re-introduced the original plan of Piso and HELVETIUS of giving it alone, in large and effective doses. The following facts now seem to be established: that acute dysentery is more successfully and speedily treated by large doses of ipecacuanha than by other means; that this remedy is more effectual in the acute than in the chronic forms; that large doses (gr xxv-xxx) may be given with perfect safety, without fear of hyperemesis or other ill effects. The mode of treatment, in the main, now generally practiced, is that detailed by Dr. W. C. MACLEAN in the article on dysentery in REYNOLDS' System of Medicine, a condensed statement of which has already been given.

*Limonis Succus* should form an essential part of the treatment when the state of the gums or other circumstances lead to the belief in a scorbutic taint. A mixture of equal parts of lime juice, decoction of cinchona and port wine was employed with good results in the British army in the first Burmese war.

*Linum*. The infusion of flaxseed is an excellent demulcent.

\**Opium* fulfils three important indications:—1. Allaying pain and muscular excitement; 2. Moderating the peristaltic motion of the intestines; and, 3. Promoting the cutaneous secretion. It is considered by Dr. WARING as, on the whole, however, inferior, especially at the onset of an acute attack, to ipecacuanha. A preliminary dose of opium is often of great service in enabling the stomach to retain ipecacuanha



and in preventing its emetic operation. The dose of solid opium may be increased from gr. j to gr. iij-iv, three or four times a day, not only without inconvenience, but with benefit, there being a marked tolerance of opium in this disease. The signs that its administration has been carried as far as is consistent with safety are nausea or vomiting, tympanitic distention of the abdomen, and scanty stools. *Tormina* and *tenesmus* are best relieved by opiate enemata.

*Plumbi Acetas*, in doses of gr. iij-iv, in combination with Dover's powder (gr. iv-v), may be given with advantage in the advanced stages of acute dysentery, especially when the stools contain much mucus. The following *enema* may often be advantageously employed:—

653. R.	Plumbi acetatis,	gr. x	
	Acidi acetici diluti,	℥ x	
	Morphiæ acetatis,	gr. ʒi	
	Aquæ tepidæ,	f. ʒiv.	M.

*Potassii Bitartras*. In the advanced stages of acute dysentery, when laxatives are indicated and the stools abound with thick viscid mucus, cream of tartar seems to exercise a special influence in diminishing the mucous intestinal secretion and in unloading the portal system. It may be given with equal parts of sulphur, or with jalap, in the form of the approved *pulvis jalapæ compositus*.

*Turpentine Stupes* are highly serviceable in lessening *tormina* and *tenesmus*.

*Blood-letting*. Venesection has fallen into nearly total disuse in dysentery.

\**Leeches* to the verge of the anus often afford great relief to the *tormina* and *tenesmus*, and, by unloading the portal and hemorrhoidal veins, exercise a favorable influence in the course of the disease.

*Cathartics*. When given judiciously, mild cathartics are often beneficial, but ill-chosen or ill-timed, they do much mischief. Castor oil, though valuable, is inferior to cream of tartar alone, or combined with sulphur or with jalap, in the officinal *pulvis jalapæ compositus*.

*Enemata*. Large enemata (four or six pints thrown into the transverse colon by means of a long flexible tube per rectum) are sometimes given. Small enemata (f. ʒiss-ij) containing opium and ipecacuanha are often useful in allaying *tormina* and *tenesmus*.

## DYSENTERY, CHRONIC.

DR. RICHARD B. MAURY, OF MEMPHIS.

Some of the most satisfactory results in chronic dysentery have been obtained by the plan first advocated by this gentleman in the *Atlanta Medical and Surgical Journal*, December, 1872, and later in the *New York Medical Journal*, March, 1876. The patient is placed in the left lateral position, used for making uterine examinations, and the interior of the rectum is exposed to view by means of a small Sims', or other appropriate speculum. This reveals one or more superficial ulcerations of the mucous surface. These are carefully



cleansed with cotton-wool, and a solution of nitrate of silver,  $\mathfrak{z}\text{ij}$ , to  $\text{f.}\mathfrak{z}\text{j}$  of water, is thoroughly and carefully applied to the ulcerated surface. The treatment causes considerable pain, which should be relieved by morphia hypodermically, and the patient be kept in bed. The improvement is immediate, the movements become less frequent, and the sanguineous discharges cease. In from four days to a week the caustic application should be repeated, which is often sufficient to effect a permanent cure. The following specific directions are given:—

Proceed deliberately and carefully, as in any other surgical procedure. Always etherize the patient, and always stretch the sphincter ani. When properly done, these are both perfectly safe measures. The patient being etherized, the operator is enabled to explore the rectum, and make his applications deliberately and thoroughly. Paralyzing the sphincter is not only necessary to complete any satisfactory explorations, but the quieting influence secured thereby to the rectum can hardly be over-estimated. Put the patient in Sims' position for uterine examinations, and use Sims' vaginal speculum for examining the anterior and lateral walls of the rectum, and the bivalve with hinges on one side for examining the posterior wall.

If much disease is discovered on examination, the surgeon may use nitric acid. If ulceration is superficial, and the mucous membrane not much hypertrophied, the nitrate of silver does well. The patient should be required to remain in bed for a week or two, on a milk and meat diet.

LUCIUS M'GUIRE, M. D., SAN FRANCISCO.

Our author recommends the use of *iron* in chronic dysentery:—

654. R.	Ferri subsulphatis,	$\mathfrak{D}\text{ij}$	
	Glycerinæ,	$\text{f.}\mathfrak{z}\text{j}$	
	Aquæ,	$\text{f.}\mathfrak{z}\text{vij}$ .	M.

One-half to be given as an injection every two hours.

A single injection will often arrest the discharges almost immediately. The doctor has had occasion to try the Monsell salts a number of times as a *dernier resort* in dysentery, and with uniform success.

W. E. WHITEHEAD, M. D., ASSISTANT SURGEON, U. S. A.

Our author recommends *ipecacuanha* in chronic dysentery. He directs the following treatment:—

A *hot salt bath* daily, or several times a week, just before going



to bed; such nourishing food as best agrees; flannel next the skin; a well-ventilated, dry and warm sleeping-room; and

655. R. Pulveris ipecacuanhæ, ʒiij.  
For twelve powders. One to be taken morning and evening, on an empty stomach.

As improvement takes place lessen the dose of ipecacuanha to ten grains twice a day, and then to eight grains at bedtime. After the ipecacuanha is stopped, it may be followed with advantage by ten drops of the *muriated tincture of iron* morning and night. Other testimony to the value of ipecacuanha in chronic dysentery has been recently given by Dr. A. A. WOODHULL, U. S. A., and others.

THOMAS HAWKES TANNER, M. D., F. L. S., ETC.

656. R. Cupri sulphatis,  
Extracti opii, āā gr.v  
Extracti gentianæ, ʒj. M.  
For twenty pills. One three times a day in obstinate diarrhœa.
657. R. Argenti nitratis, gr.ss  
Extracti opii, gr.ij. M.  
Make a pill. To be taken night and morning.

In very obstinate dysenteric diarrhœa, where opium agrees with the system.

### RÉSUMÉ OF REMEDIES.

*Alum* is much less employed in chronic dysentery now than formerly. It may be given in combination with Dover's powder.

\**Argenti Nitras* is of great service in chronic dysentery. It should be given in the same manner as directed for the advanced stage of the acute affection.

*Arnica* is praised by German authorities in chronic dysentery, when the vital powers are greatly depressed.

*Benzoinum* has proved successful in the hands of Dr. CHIPPERFIELD, of Madras (*Madras Quarterly Medical Journal*, January, 1867), given as follows:—

658. R. Tincturæ benzonii compositæ, f.ʒj-ij  
Tincturæ opii, ℥xx-xl  
Pulveris acaciæ, gr. xxx  
Aquæ carui, ad. f.ʒvj. M.

Dose—One-fourth part every four hours.

\**Bismuthi Subnitratis* is highly praised in subacute and chronic dysentery by TROUSSEAU and RÉCAMIER. It is also much employed by Prof. DA COSTA.

*Calcei Aqua* by the mouth, or by enema, proves useful in some cases.



*Carbo Ligni* was recommended by Prof. CHAPMAN, who found it, internally administered, to remove the acrid and offensive character of the stools.

*Carbonic Acid Gas* introduced per anum has been advised.

*Cascarilla* is highly thought of by the Germans.

*Cetraria Islandica*, in the form of jelly or decoction, is a valuable tonic and nutritive during convalescence.

\**Cupri Sulphas*, combined with opium, is often highly serviceable in chronic dysentery.

*Cusparia* may be given with advantage in the latter stages.

*Fermentum* has been recommended for removing the fetor of the stools and diminishing their frequency :—

659. R.	Fermenti,	f.℥x	
	Camphoræ,	gr. xxx	
	Spiritus ætheris nitrosi,	f.℥ss.	M.

A tablespoonful every two or three hours, according to the severity of the symptoms.

*Ferri Chloridi Liquor*, in doses of gtt. iij-vij, well diluted with water and syrup, is frequently employed in France. The same doses in enema, combined with opium, are often serviceable.

\**Ferri Nitratis Liquor* is of great benefit, particularly in those anæmic from loss of blood and the depraving influence of malaria.

*Ferri Subsulphatis Liquor*, diluted in enema, has been recommended.

*Hæmatoxyllum*, in decoction or extract (gr. x-xxx), is an excellent tonic astringent, but inadmissible so long as any active inflammation exists.

*Hydrargyrum*, excepting very occasionally as a purgative, when there is congestion of the liver, is wholly uncalled for in chronic dysentery.

\**Ipecacuanha*, in the form of Dover's powder, is often of the greatest benefit in chronic dysentery, given at bedtime in full dose (gr. x-xij), or in small, frequently-repeated doses, in combination with nitrate of silver.

*Jalapa*, in the form of pulvis jalapæ compositus, is the best purgative which can be employed in dysentery.

*Leptandrin* is said to be useful when the stools are destitute of bile and the mucous membrane is irritable.

*Nitro-muriaticum Acidum Dilutum*, in lotion (f.℥j to aquæ Oj), applied to the abdomen, is of benefit, especially when there is hepatic disease.

\**Opium* is of great value in chronic dysentery, and may be given combined with nitrate of silver, sulphate of copper, or sugar of lead.

*Plumbi Acetas*, though less effectual perhaps than nitrate of silver or sulphate of copper, may be employed at an earlier stage than either of those salts.

*Potassii Bitartras* is one of the best purgatives which can be employed when laxatives are indicated.

*Granati Fructus Cortex*, in decoction, occasionally, in the absence of inflammatory action, proves useful.

*Quercus Cortex*, in decoction, has been recommended in the advanced stages of chronic dysentery.

\**Quiniæ Sulphas*, in full doses (not less than ℥j, in solution), should be given in malarial dysentery, and repeated until cinchonism is induced. *Ipecacuanha* should then be given as directed.

*Nux Vomica*, combined with opium and iron, is worthy of trial when there is much exhaustion.



*Sulphur* appears to exercise a favorable influence in some cases of chronic dysentery.

*Tannin*, in combination with opium and ipecacuanha, is often of service.

*Tormentilla*, in decoction, may be given with advantage in the advanced stages of dysentery, after inflammatory action has been subdued.

*Zinci Oxidum*, in doses of gr.ij-v thrice daily, is recommended by Dr. WARING-CURRAN.

*Zinci Sulphas*, combined with ipecacuanha and opium, has been employed with success.

*Water Belt.* Dr. W. C. MACLEAN recommends the use of a water belt over the abdomen for some hours daily. It acts as a fomentation, and the steady, uniform pressure it maintains seems to favor the absorption of the fibrine effused between the intestinal coats. If there be much uneasiness about the anus, a water compress over the part often affords more relief than an opiate enema. The *cold hip-bath* daily, for a few months, is also of service.

## DYSPEPSIA.

WM. AITKEN, M. D., EDINBURGH.

660. R. Sodæ bicarbonatis, 3v  
Potassæ nitratis, 3j. M.

For twenty powders. Order one two or three times a day in those forms of indigestion marked by excessive acidity and heartburn. At the same time free excretion from the liver and bowels must be sustained by occasional doses of blue pill or podophyllin, combined with extract of colocynth and of henbane, while exercise and diet are duly attended to.

661. R. Ammonia carbonatis, ʒj  
Extracti gentianæ, ʒij. M.

For twenty pills. One thrice daily in weakened digestion from over-fatigue.

662. R. Extracti nucis vomicæ,  
Ferri sulphatis, ʒā gr.ss  
Extracti colocynthidis compositi, gr.iv. M.

This combination, taken early in the morning, generally induces gentle action of the bowels.

In prescribing the mineral acids, our author calls attention to the following general rule, stated by Dr. BENCE JONES, namely, that the influence of sulphuric acid is astringent, while that of muriatic acid promotes indigestion, and of nitric acid secretion.

THOMAS KING CHAMBERS, M. D., CONSULTING PHYSICIAN AND LECTURER ON THE PRACTICE OF MEDICINE AT ST. MARY'S HOSPITAL, LONDON.

663. R. Acidi hydrocyanici diluti, m℥  
Infusi gentianæ, f.ʒvj. M,

A tablespoonful thrice daily in heartburn due to over-sensitiveness.



664. R. Zinci oxidi,  
Pilulæ aloës et myrrhæ,      āā      ʒiſs.      M.

Divide into twenty pills. One thrice daily, in the nervous trembling, indigestion of food and vomiting, arising from indulgence in spirit drinking, between meals and in the forenoon.

J. M. DA COSTA, M. D., PHILADELPHIA.

665. R. Acidi nitro-muriatici, f. ʒij  
Vini pepsini, f. ʒiij. M.

A teaspoonful three times a day, before or after meals.

In functional indigestion owing to a want of proper secretion of gastric juice. When there is constipation, add also:—

666. R. Pulveris rhei,                      ℥j  
Quiniæ sulphatis,                    gr.x.                    M.

Divide into ten pills. One to be taken at night. If this be not sufficient to produce a laxative effect, take one night and morning. Meat diet almost exclusively, avoiding starchy substances.

C. W. FRISBIE, M. D., EAST SPRINGFIELD, NEW YORK.

- |      |    |                        |    |       |    |
|------|----|------------------------|----|-------|----|
| 667. | R. | Hyoscyami,             |    | 3j    |    |
|      |    | Argenti nitratis,      |    |       |    |
|      |    | Extracti nucis vomicæ, | āā | gr.xv |    |
|      |    | Pulveris opii,         |    |       |    |
|      |    | Pulveris camphoræ,     | āā | ʒj.   | M. |

Divide into sixty pills. Give one three times daily, from a half to one hour before eating, in painful digestion, over-sensibility of the stomach, etc.

THOS. HAWKES TANNER, M. D., F. L. S., LONDON, ETC.

- |         |                               |                    |    |
|---------|-------------------------------|--------------------|----|
| 668. R. | Acidi nitro-muriatici diluti, | f. 3ij             |    |
|         | Acidi hydrocyanici diluti,    | m. xxv             |    |
|         | Tincturæ arnicæ,              | f. 3j              |    |
|         | Tincturæ gentianæ compositæ,  | f. 3j              |    |
|         | Infusum sennæ,                | q. s. ad. f. 5iij. | M. |

A tablespoonful two or three times daily in dyspepsia with sluggish action of the liver.

The efficacy of this prescription may often be increased by giving with each dose the following pill:—

669. R. Zinci sulphatis, gr. j-ij  
Extracti gentianæ, gr. iv. M.

670. R. Quiniæ sulphatis, gr. xij  
Pulveris ipecacuanhæ, gr. xij-xxiv  
Extracti gentianæ, gr. xxiv. M.

Divide into twelve pills, and order one to be taken every day at dinner.

An excellent remedy in cases of slow indigestion.



## PROFESSOR ROBINSON, BOWDOIN COLLEGE.

671. R. Extracti cimicifugæ fluidi,  
Tincturæ sanguinaræ,  
Syrupi sarsaparillæ,                      āā      f. 3j.      M.

Dose—One teaspoonful three times daily. Very useful in cardiac palpitation resulting from dyspepsia.

One of the finest preparations in dyspepsia with flatulence is the following:—

672. R. Sulphatis sodæ,    3j  
Tincturæ nucis vomicæ,    f. 3v  
Aquæ,    f. 3iv.      M.

A teaspoonful thrice daily, after meals.

673. R. Ferri sulphatis exsiccatae,  
Extracti hyoseyami,    āā      3j  
Extracti nucis vomicæ,    ʒj.      M.

For sixty pills. Give one half an hour before each meal, three times daily, in water.

674. R. Ferri redacti,    gr. xxxvj-3j  
Pepsinæ,    gr. xxxvj  
Zinci phosphatis,    gr. xvij  
Glycerinæ,    q. s.      M.

Divide into twenty-four pills, silver them, and order two to be taken every day at dinner.

In anæmia, etc., with weakness of the digestive organs.

## PROF. T. GAILLARD THOMAS, NEW YORK.

675. R. Magnesiæ sulphatis,    3ij  
Ferri sulphatis,    gr. xvj  
Acidi sulphurici diluti,    f. 3j  
Aquæ,    ʒj.      M.

Two tablespoonfuls in a tumbler of ice-water every morning upon rising, when a ferruginous tonic, combined with a saline, is indicated.

Or,

676. R. Potassæ et sodæ tartratis,    3ij  
Vini ferri amari,    f. 3ij  
Acidi tartaraci,    3iij  
Aquæ,    f. 3xij.      M.

Two tablespoonfuls in a tumbler of ice-water before breakfast. Should this dose be not sufficient, two or three may be taken daily, for the result will prove tonic and reparative as well as cathartic.

677. R. One rennet, washed and chopped.  
Vini rubri,    ʒj.      M.

Macerate for twelve days, and then decant, filter, and add:—

- Acidi nitro-muriatici diluti,    f. 3ij  
Tincturæ nucis vomicæ,    f. 3ij  
Bismuthi subnitratæ,    ʒij.      M.

One tablespoonful in a quarter of a tumbler of water before each meal, as a digestive tonic.



This prescription embraces the tonic properties of *nux vomica* and the peculiar restorative influence of bismuth, with a fluid which resembles the gastric juice. In many cases of habitual indigestion our author has obtained from it the best results.

678. R.	Quinæ sulphatis,	℥ij	
	Ferri sulphatis,	℥j	
	Acidi sulphurici aromatici,	gtt.x	
	Mucilaginis acaciæ,	q. s.	M.

Divide into twenty pills. One to be taken three times a day, before each meal.

#### DR. WILLIAM BRINTON, LONDON.

This writer gives the following useful hints in regard to the salts of iron in dyspepsia. They are generally beneficial, not only in proportion to the anæmia and general derangement of nutrition present, but in proportion to the patient's deprivation of a due share of light, air and exercise, which is the cause of so much of the dyspepsia of civilized life. Hence iron is more useful in females than in males, more in the sedentary dyspeptic than in the florid and over-fed. Where great nausea and irritability exist, it should generally be avoided. It should always be given immediately after a meal, excepting after tea. The *effervescing citrate* will generally be borne by the most delicate stomach. Neither this nor any other salts of iron should be given in doses sufficiently large to cause nausea or flatulence. The *carbonate, phosphate, sulphate* and *chloride* form a scale of increasingly irritative preparations, and therefore demand not only a diminished dose, but an increased dilution. Thus, while we may give gr.x of the citrate as a common dose, gr.ij of the sulphate, and ℥vij-vij of the tincture of the chloride with half a wineglassful of water, are as much as most dyspeptics will safely bear. The *oxide* and other comparatively insoluble preparations should be avoided. The efficacy of the salts of iron in dyspepsia often appears to be increased by conjoining them with the *sulphate* or *oxide of zinc*.

*Cathartics*, according to Dr. W. BRINTON, are of great service in dyspepsia in emergencies; of little service, almost hurtful, as prominent features in treatment, which ought always to aim at such a tonic effect as is incompatible with habitual purgation. They should be given in the smallest doses, on an empty stomach, either before dinner, in the shape of a slowly-acting pill, or early in the morning, in that of a more rapidly-acting liquid. The pill form is prefera-



ble, as a rule, especially when the aperient is often repeated, the liquid aperients, especially the saline, often acting injuriously on an irritable stomach. Castor oil, however, is in many constitutions an exception to this rule.

PROF. FONSSAGRIVES, MONTPELLIER, FRANCE.

679. R. *Magnesiae*, 3j  
*Liquor calcis*,  
*Aquæ destillatæ*, āā f.3ij  
*Syrupi aurantii florum*, f.3j. M.

A tablespoonful from time to time, in the intestinal colic of dyspepsia ; cold enemata of the infusion of chamomile.

680. R. *Potassii bicarbonatis*, 3j  
*Tincturæ cardamomi compositæ*,  
*Tincturæ rhei*, āā f.3ij  
*Spiritus ammoniæ aromatici*, f.3j  
*Aquæ menthæ piperitæ*, f.3ijss  
*Syrupi aurantii corticis*, f.3j. M.

Take two tablespoonfuls half an hour before each of the two principal meals, in flatulent dyspepsia.

DR. PARIS, PARIS.

681. R. *Magnesiae*, 3ss  
*Spiritus lavandulæ compositi*, f.3ss  
*Spiritus cari*, f.3ijss  
*Syrupi zingiberis*, f.3ij  
*Aquæ menthæ piperitæ*, f.3ij. M.

Take one-half after the meal, when the digestion is accompanied with an abundant development of gas.

682. R. *Bismuthi subnitratis*,  
*Cinchonæ floræ pulveris*, āā gr.xxv  
*Calumbæ pulveris*, gr.xv  
*Opii pulveris*, gr.vj. M.

Divide into ten powders. One an hour after each of the two principal meals, when there is atony of the stomach and pain during digestion.

DR. BONNET, PARIS.

683. R. *Bismuthi subnitratis*, 3v  
*Morphiæ muriatis*, gr.½-iss. M.

Mix carefully and divide into twenty powders. One immediately after each of the two principal meals, in two tablespoonfuls of sweetened water, in dyspepsia with a tendency to diarrhœa.

DR. GUIPON, FRANCE.

684. R. *Potassii bitartratis*, 3ij  
*Magnesiae*, 3j-ij  
*Jalapæ pulveris*, gr.xv-xxx. M.

As a purgative in some cases of chronic dyspepsia ; to be given in one dose.



## DR. MAYET, FRANCE.

685. R. Canellæ pulveris, 3ijss  
 Piperis,  
 Cardamomi, āā. 3ss  
 Cinchonæ, 3j  
 Krameria, 3v  
 Lunel wine, Oij. M.

Bruise these substances and macerate them in the wine during several days; then filter. A wineglassful morning and evening, to give tone to the stomach.

## SWEDISH PHARMACOPŒIA.

686. R. Sennæ, 3iv  
 Coriandri seminis,  
 Fœniculi seminis, āā 3ij  
 Vini serici, Oij.

Bruise the senna leaves and the seeds, digest three days in the wine and add:—

- Raisins, 3iij.

Macerate twenty-four hours and filter. A wineglassful in the morning, on an empty stomach, as a laxative and carminative, in flatulent dyspepsia.

## DR. VANCE, FRANCE.

687. R. Extracti colocynthis compositi, ʒiv  
 Scammonii, ʒj  
 Extracti rhei, gr.xj  
 Saponis, gr.ivss.  
 Spiritûs canellæ, gtt.iv. M.

Divide into twenty-four pills. One or two in the morning, on an empty stomach, to provoke bilious stools and increase the appetite.

## RÉSUMÉ OF REMEDIES.

*Aloes*, in doses of gr.ij-iv, combined with ipecacuanha (gr.j-ij), two or three times a week, is useful in the dyspepsia of persons of a relaxed habit, or those debilitated by long illness, especially if it be probable that the duodenum is implicated.

*Ammonii Carbonas* is prescribed by Dr. AITKEN in weakened digestion from over-fatigue.

\**Argenti Nitras* is useful in many obstinate cases of dyspepsia attended with morbid sensibility and hypochondriasis. The following formula may be used:—

688. R. Argenti nitratis, gr.ss  
 Extracti hyoscyami, gr.ij-iv. M.  
 Make pill. Take every night.

The quantity of the nitrate may be gradually increased to grs.ij-ij daily, and this may be continued with safety for six or eight weeks, but not beyond that time. It may sometimes be advantageously combined with small doses of quinine. The diet should be carefully directed. Or the nitrate may be given in solution:—



689. R. Argenti nitratis crystallini, gr.vi  
Aquæ destillatæ, f.ʒiij. M.

A tablespoonful to be taken at bedtime, on an empty stomach, and repeated every night, or every second, third or fourth night, according to the severity of the symptoms.

*Argenti Oxidum* was much employed by Dr. GOLDING BIRD in gastralgia, gastrodynia, and in those forms of dyspepsia attended with irritable stomach and pain after food. He regarded it as a valuable sedative and tonic, possessing all the virtues without the inconveniences of the nitrate. Dr. J. EYRE used it with advantage in pyrosis. It must be remembered that it cannot, in these cases, be combined with creasote, for violent decomposition, attended with heat, and even flame, follows the mixture of these substances.

\**Arsenic* is a valuable remedy in *gastrodynia*, particularly when of a neuralgic character. Fowler's solution should be given after a meal, commencing with small doses (ʒiij), and gradually increasing them, adding a few drops of laudanum when large doses are reached, to prevent purging. Dr. RINGER recommends Fowler's solution (ʒj-ij), shortly before each meal, in many forms of chronic dyspepsia. He finds it very effectual in checking the morning vomiting of drunkards.

*Aurantii Amari Cortex*, in tincture or infusion, is an elegant tonic in dyspepsia.

*Assafœtida*, in combination with bitter tonics and mild aperients, is useful in dyspepsia attended with hypochondriasis and other mucous affections.

\**Bismuthi Subnitratis* is of great value in atonic dyspepsia. Dr. W. BRINTON finds it particularly useful in the "morbid sensibility of the stomach" of old writers. Dr. WILSON FOX especially recommends it in the milder forms of gastric inflammation. He finds that in *pyrosis*, when combined with opium, it seldom fails to relieve, but that in order to effect a cure a more direct astringent, like kino, is required. Professor R. J. GRAVES considers it one of the best remedies we possess in *gastrodynia*.

*Calcis Aqua*, in doses of f.ʒij, in milk, is useful in dyspepsia connected with acidity of the stomach; also when the urine shows a strong acid reaction, and when vomiting is a prominent symptom.

*Calcis Saccharas* is a good tonic in obstinate dyspepsia.

\**Calumba*, in infusion, is a valuable vegetable bitter tonic in atonic dyspepsia. It may be given at an earlier period than other remedies of the same class, and forms an excellent vehicle for other appropriate remedies.

*Capsicum* is especially useful in the atonic dyspepsia of hard drinkers and long residents in hot climates. The following formula may be employed:—

690. R. Pulveris capsici, gr.ij-iiij  
Pilulæ rhei compositæ, gr.v  
Pulveris ipecacuanhæ radicis, gr.ss. M.

Make two pills. To be taken daily, an hour before dinner.

\**Carbo Ligni*, enclosed freshly prepared in gelatine capsules, is a valuable remedy in dyspepsia attended with obstinate flatulence and gastrodynia.

*Cardamomum*, in the form of the compound tincture, is highly serviceable in the dyspeptic affections of old persons.



*Caryophyllum*, in infusion, or volatile oil (gtt. iij-v), is of benefit in atonic dyspepsia attended with a sense of coldness in the stomach and much flatulence.

*Cerii Oxalas* was much employed by the late Prof. SIMPSON in irritable dyspepsia, attended with gastrodynia, pyrosis and chronic vomiting.

*Colocynth* is useful in some forms of dyspepsia and gastrodynia, when no inflammatory symptoms are present. The following formula may be employed:—

691. R.	Extracti colocynthidis compositi,	℞ij	
	Pilulæ rhei compositæ,	℞j	
	Saponis,	gr.vj	
	Olei caryophylli,	gtt.iv.	M.

Make sixteen pills. Take one or two every half-hour.

*Ferrum*. (See above).

*Gallicum Acidum* has been recommended in dyspepsia arising from a relaxed state of the mucous membrane of the stomach. It is useful in *pyrosis*, unaccompanied by organic disease of the stomach, or of the liver.

*Gentian*, in the form of tincture in an aromatic water, is a valuable stomachic in atonic dyspepsia and in the dyspepsia of gouty subjects.

*Hydrargyri Pilula*, in doses of gr. ij-jv, is useful in dyspepsia attended with hepatic derangement, or when the duodenum is supposed to be the seat of the disease. It may be combined with *ipecacuanha* (gr. j-ij) and with a sedative. Ptyalism must be avoided.

*Hydrargyri Chloridum Mite* is sometimes productive of marked benefit in dyspepsia characterized by hepatic derangement. But its habitual use, even as a purgative, is not without detriment, and its constitutional effects are mischievous.

*Hydrocyanic Acid*, in doses of mjj-iv, combined with infusion of columbo, is often signally useful in dyspepsia attended with gastric irritation. Dr. WILSON FOX states that in the irritative dyspepsia of phthisis it is a most effectual remedy.

*Ipecacuanha*, in doses of gr. ss-j, in the form of pill, with gr. iij-iv of rhubarb, taken before meals, often proves serviceable in atonic dyspepsia, especially when the biliary secretion is deficient or vitiated.

*Kino* is useful in the incipient stages of follicular dyspepsia. It does not appear to constipate the bowels, if diarrhœa be not present. Sir T. WATSON recommends it highly in *pyrosis*, in the form of pulvus kino compositus:—

692. R.	Kino,	℥iv	
	Pulveris opii,	gr.xv	
	Cinnamomi,	℥j.	M.

Divide into thirty powders. One thrice daily.

Dr. WILSON FOX also regards it as the best remedy in *pyrosis*.

\**Lactic Acid*, first introduced as a remedy in dyspepsia by MAGENDIE, has been employed with success by Dr. C. HANDFIELD JONES in cases of irritative dyspepsia, when the digestion has been for a long time painful and imperfect. Its use is not advised at the commencement of a severe case, but only after the irritation is somewhat reduced. The dose is ℥xv-xx, in a tablespoonful of water, taken at meal-times. Its use may be extended to all cases where it is desirable to improve the tone and power of the stomach. But it is essential, in order to obtain good effects, that the acid should be pure and of good quality,



which unfortunately is frequently not the case with that which is generally dispensed.

*Magnesia Sulphas*, in small doses, has been found very effectual in dyspepsia accompanied by costiveness. The following formula may be used:—

693. R.	<i>Magnesia sulphatis,</i>	3j	
	<i>Infusi quassia,</i>	Oiss	
	<i>Spiritus ammoniac aromatici,</i>	f.3ij.	M.

Drink a wineglassful of this every morning, fasting.

Or the following may be employed:—

694. R.	<i>Magnesia sulphatis,</i>	3vj	
	<i>Magnesia carbonatis,</i>	3iss	
	<i>Vini aloës,</i>	f.3vj	
	<i>Tinctura humuli,</i>	f.3ij	
	<i>Acidi hydrocyanici diluti,</i>	℥xv	
	<i>Infusi cascarrillæ,</i>	f.3vij.	M.

Take three tablespoonfuls thrice daily.

*Manganesii oxidum nigrum*, in doses of gr.x-xv thrice daily, has been recommended in certain irritable conditions of the stomach and forms of dyspepsia.

*Morphia*, subcutaneously injected, in doses of one-fourth grain, has been used with excellent success by Dr. CLIFFORD ALLBUTT (*Practitioner*, June, 1869) in those forms of dyspepsia characterized by irritability or erethism, or such as is often associated with hysteria, or which arises from great mental exertion or depression.

*Muriaticum Acidum Dilutum*, in doses of ℥.xv-xx, properly diluted, given immediately before, during, or directly after a meal, is highly recommended by Dr. WILSON FOX in atonic dyspepsia. It may be combined with vegetable bitters. In nervous disorder of digestion associated with diarrhoea he combines the acid with tincture of nuxvomica, and gives before meals.

*Pepsine* is especially indicated in dyspepsia connected with deficient secretion of gastric juice. It is particularly useful in gastric disturbances following the use of animal food, often enabling a patient who has not dared attempt it, to eat of it with impunity. The severest cases of *gastralgia* are relieved by it. If it fails after three or more doses, it is probable that the dyspepsia does not arise from a defect of the gastric secretion. Dr. WILSON FOX strongly recommends it, not only in atonic dyspepsia, but in irritative states of the gastric mucous membrane. It may be advantageously combined with muriatic acid at meal-times (a similar combination is recommended by Prof. DA COSTA). It may be combined with other medicines which do not impede its therapeutic action; thus, with muriate of morphia, to relieve violent pain of the stomach; with strychnia, to stimulate peristaltic movement; with subnitrate of bismuth, lactate or iodide of iron, etc.

*Potassii Sulphuretum*, in doses of gr.x, alone or combined with an aromatic, is useful when the mucous follicles are supposed to be implicated.

*Potassii Sulphas*, in doses of gr.xv-℥ij, alone or combined with rhubarb (gr.v-x) or aloes, is a safe and efficient aperient in dyspeptic affections.

*Potassii Tartras* is sometimes employed as a mild purgative in dyspeptic affections, attended with slight febrile action.

\**Potassii Iodidum*, in small doses (gr.j-ij), with bicarbonate of potash (gr.vij-x), is recommended by Dr. W. BRINTON in flatulent dyspepsia, in which, whether from a too starchy diet, deficient or hasty mastication, decayed teeth, the abuse of tobacco or other causes, the salivary excre-



tion seems either deficient in quantity or faulty (*i. e.*, acid) in quality. Two or three administrations will often induce a marked change.

*Quassia*, in infusion, combined with carbonate of soda, is recommended by TROUSSEAU in dyspepsia attended by acidity of the stomach, sour eructations, and marked especially by vertigo and a tendency to syncope. It is peculiarly useful in the dyspepsia of drunkards.

\* *Rheum* is often highly serviceable, as it is warm and carminative in its nature, speedy, and neither stimulant nor drastic in its action. Eight grains made into pills with soap, and taken every night at bedtime, together with some mild bitter infusion, and an alkali in the daytime, is a very effectual mode of treatment. The following mixture is useful :—

695. R.	Aloës,	3j	
	Rhei,		
	Glycyrrhizæ,	āā	3ss
	Spiritus lavandulæ compositus,		f. 3ss
	Aquæ calcis,		f. 3viij.
			M.

Infuse for twelve hours and strain. Dose—Two tablespoonfuls two or three times daily.

The following formula is of benefit when acidity is a prominent symptom :—

696. R.	Rhei,	3iss	
	Potassæ carbonatis,	3iij	
	Aquæ ferventis,	f. 3xij.	M.

Macerate for twelve hours, strain and add :—

Tincturæ cinnamomi compositus,	f. 3ij.	M.
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Dose—A tablespoonful to a wineglassful.

The old plan of chewing a piece of solid rhubarb is an excellent one, as by this means no more is swallowed than what is dissolved in the saliva, and this is frequently sufficient to keep the bowels regular, and impart tone to the digestive organs without producing subsequent constipation. Professor DA COSTA sometimes combines it with quinine.

\* *Ricini Oleum*, in doses of a teaspoonful daily, given at bedtime, is one of the most valuable remedies in dyspepsia attended with inflammation or vascular excitement of the pylorus and duodenum. The nature of the morbid condition of the mucous membrane of the stomach is indicated by the effects of castor oil. In atonic dyspepsia it is borne with the greatest difficulty, causing nausea and vomiting; in irritable dyspepsia it acts severely, and with much griping; but in vascular excitement of the mucous membrane of the stomach it soothes most admirably, and produces the best effects when it has no aperient action. It may be combined with liquor potassæ, or administered in emulsion, in coffee, or in a mild carminative water.

*Sapo*, in combination with rhubarb and an essential oil, is useful in dyspepsia attended with acidity; also in *pyrosis*, given either alone or with opium.

*Senna*. A mixture of equal parts of the infusions of senna and gentian is often beneficial in atonic dyspepsia, especially when attended by constipation.

*Serpentina* is recommended by Dr. A. T. THOMSON in dyspepsia when the skin is hot and dry.



*Sinapis*. White mustard seeds, in doses of two or three teaspoonfuls two or three times a day, have been advised in some forms of dyspepsia.

\**Sodii Bicarbonas*, in full doses (ʒij-ijj), combined with tincture of ginger (℥xxx) and aromatic spirits of ammonia (f.ʒss-j), is very useful in dyspeptic attacks attended with colic and gastric irritability, especially when consequent on the ingestion of unwholesome food. Dr. AITKEN combines it with nitrate of potash when there is excessive acidity and heartburn.

*Sodii Hyposulphis* is praised by Sir W. JENNER and Dr. W. BRINTON in flatulent dyspepsia. In doses of gr.x-xv, in infusion of quassia, it has proved successful in *saracina ventriculi*.

\**Strychnia* or *Nux Vomica* is useful in chronic dyspepsia in preventing distention by flatus. It is also serviceable in *pyrosis* and *heartburn*.

*Tannic Acid*, which may advantageously be combined with dilute nitric acid, is often very serviceable in dyspepsia, the symptoms disappearing under its use, the appetite improving, and the bowels, far from being constipated, often becoming more free.

*Tarazacum* is much used where the liver is implicated, and in the indigestion of gouty subjects. The following formula may be employed:—

697. R.	Extracti taraxaci,	ʒij	
	Potassii nitratis,	ʒss	
	Spiritus ætheris nitrosi,	f.ʒj	
	Infusi aurantii,	f.ʒvj.	M.

Take two tablespoonfuls thrice daily.

*Zinci Sulphas* is recommended by Dr. GOLDING BIRD in dyspepsia associated with irritability of the nervous system.

*Zinci Oxidum* has, according to Dr. WILSON FOX, the advantage over the sulphate in irritable conditions of the nervous system associated with dyspepsia, when given at bedtime, in doses of gr.ij-ijj for procuring sleep.

## GASTRALGIA.

PROF. F. NIEMEYER.

698. R.	Tincturæ nucis vomicæ,		
	Tincturæ castorei,	aa	f.ʒj. M.

Twelve drops during the attack of gastralgia, in a small cupful of infusion of valerian. Warm applications to the epigastrium.

DR. GALLARD, PARIS.

699. R.	Morphiæ muriatis,	gr.iss	
	Aquæ lauro-cerasi,	f.ʒiss.	M.

One drop on a piece of sugar, immediately after each meal, to persons affected with gastralgia.

700. R.	Tincturæ aconiti,	℥xl	
	Sodii carbonatis,	ʒiv	
	Magnesi sulphatis,	ʒiss	
	Aquæ,	f.ʒv.	M.

A tablespoonful to relieve the pains of gastralgia.



701. R. Extracti belladonnæ, gr.vij  
 Quiniæ sulphatis, 3j. M.  
 Divide into thirty pills. One thrice daily, in the treatment of gastralgia.

## DR. MILLET, FRANCE.

702. R. Bismuthi subnitratis, ʒi<sup>ss</sup>  
 Morphine muriatis, gr.ij.  
 Rheī pulveris, ʒij  
 Syrupi, q. s. M.  
 Divide into thirty pills. One morning and evening, an hour before meals, to persons suffering from painful digestion.

703. R. Aluminii et potassii sulphatis, ʒj  
 Extracti opii, gr.ijj  
 Confectionis rosæ, ʒij. M.  
 Divide into forty pills. From four to six a day in painful digestion.

704. R. Extracti belladonnæ, gr.v  
 Quiniæ sulphatis, gr.xxx  
 Extracti valerianæ, q. s. M.  
 Divide into fifteen pills. One thrice daily, in gastralgia.

705. R. Extracti hyoscyami, ʒij  
 Argenti nitratis, gr.vj  
 Bismuthi subnitratis, gr.xxx. M.  
 Divide into forty pills. One morning and evening, in the variety of gastralgia which intervenes frequently during the course of chronic gastritis. Counter-irritation to the epigastrium.

## DR. CALVO, PARIS.

706. R. Morphine muriatis, gr.j  
 Bismuthi subnitratis, gr.xij  
 Cretæ præparatæ, gr.vij  
 Tragacanthæ, q. s. M.  
 Divide into ten pills. One an hour before each of the principal meals.

707. R. Bismuthi subnitratis, ʒij  
 Magnesiæ, ʒiv  
 Opii pulveris, ʒij  
 Ipecacuanhæ pulveris, āā gr.vj. M.  
 Divide into twenty powders. From one to three a day, an hour before meals.

## RÉSUMÉ OF REMEDIES.

\**Argenti Nitras*, in doses of gr.  $\frac{1}{3}$ -ss twice or thrice daily, in combination with taraxacum, is particularly useful in those cases which prevent a combination of nervous irritability with chronic or passive congestion of the stomach.

*Argenti Oxidum* is recommended by Dr GOLDING BIRD as possessing all the good qualities of the nitrate without its inconvenience.

*Bismuthi Subcarbonas* This salt, as well as the subnitrate of bismuth, is useful in those cases attended with laborious digestion, putrid or acid eructations, and a tendency to diarrhoea and spasmodic vomiting.



\* *Hydrocyanicum Acidum Dilutum* is a highly useful remedy, which may be given in combination with bismuth.

\* *Pepsine* sometimes affords relief in the severest cases of gastralgia.

## GASTRITIS.

DR. A. L. COX, OF NEW YORK.

708. R. Nucis vomicæ pulveris, 3ss  
Argenti oxidi, gr.xv  
Extracti gentianæ, ʒiiss. M.  
Divide into forty pills. One thrice daily in chronic gastritis.

709. R. Bismuthi subnitratiss, ʒj  
Calumbæ pulveris, ʒiij  
Acaciæ, ʒij. M.  
Divide into twenty lobules. One thrice daily in chronic gastritis.

710. R. Magnesizæ, gr.vii  
Sodæ bicarbonatis, aa  
Canellæ pulveris, gr.iv. M.  
Divide into six powders, of which give one several times a day to children, where dejections are green and acid.

J. M. DA COSTA, M. D., PHILADELPHIA.

711. R. Bismuthi subnitratiss, gr.x-xxx.  
Sodæ bicarbonatis, gr.x. M.  
For one powder, to be taken after meals, when there is acidity.

712. R. Bismuthi subnitratiss, ʒss  
Acidi hydrocyanici diluti, mxxiv  
Misturæ acaciæ, f.ʒiij. M.  
A teaspoonful after meals.

When there is pyrosis, the following is useful:—

713. R. Olei succini rectificatæ, f.ʒss  
Misturæ acaciæ, f.ʒijss. M.  
Teaspoonful after meals.

## RÉSUMÉ OF REMEDIES.

\* *Argenti Nitras* is one of the most effectual remedies in chronic gastritis. The injection into the stomach of the crystallized nitrate, dissolved in distilled water, has been advised.

*Bismuthi Subnitratis* is especially useful in the milder forms of gastric inflammation.

*Hydrargyrum*. Mercurial purgatives are excellent remedies in acute gastritis. Three to four grains of calomel, followed by castor oil or a saline, may be given to an adult, vigorous patient. Blue pill, with a little colocynth and ipecacuanha, followed by seidlitz powder, may be given when active effects are undesirable.



\**Hydrocyanicum Acidum Dilutum* is often serviceable in subacute gastritis, given in an ordinary effervescing draught. Prof. DA COSTA sometimes combines it with bismuth.

*Morphia* is a valuable palliative in chronic gastritis, though generally considered inferior to hydrocyanic acid. Drs. BARDSLEY and STOKES advise it in doses of gr.  $\frac{1}{12}$ , twice the first day, three times the second, and so increasing the quantity until the patient takes one to one and a half grains in the twenty-four hours. When there was an abundant secretion of mucus, it was found particularly serviceable.

*Opium* is recommended by Dr. WILSON FOX in subacute inflammation of the stomach, when great nervous irritability and atony co-exist, in which cases it may often be combined with nitrate of silver.

\**Turpentine*, applied hot in stupes, is of great benefit.

## GASTRIC ULCER.

PROF. H. ZIEMSEN, OF ERLANGEN.

This writer (*Medicinische Central Zeitung*, April, 1872) recommends the use of alkalies, especially Carlsbad water, continued several months. Most vegetable, and fatty, and saccharine matters are injurious. A *milk diet* has proved of benefit in numerous instances; but veal, chicken, ham, white bread and light claret are harmless. *Morphia*, hypodermically, must be employed to combat the cramps in the stomach.

J. M. DA COSTA, M. D., PHILADELPHIA.

714. R.	Argenti nitratis,	gr.v	
	Extracti opii,	gr.x.	M.
For twenty pills. One thrice daily.			

The following is an excellent combination for the pain and vomiting, when opium is inadmissible:—

715. R.	Bismuthi subnitratis,	ʒij	
	Acidi hydrocyanici diluti,	f.ʒss	
	Mucilag. acaciæ,		
	Aquæ menthæ piperitæ,	āā	f.ʒij. M.
A tablespoonful thrice daily.			

## RÉSUMÉ OF REMEDIES.

*Argenti Nitras*, though generally considered of value in ulcer of the stomach, is believed by Dr. W. BRINTON to be, as generally prescribed, absolutely inert, so far as the gastric ulcer is concerned. He prefers bismuth. Professor DA COSTA sometimes prescribes the nitrate with opium.



*Arsenic* is recommended by Dr. RINGER, who gives one to two minims of Fowler's solution before each meal.

\**Bismuthi Subnitras* is highly spoken of by Dr. W. BRINTON, who gives gr. x-xx every six or eight hours, either alone or combined with gr. v-x of pulvis kino compositus. It relieves pain and vomiting, as well as diarrhoea, when present.

*Calumba*, in infusion, combined with iodide of potassium and bicarbonate of potash, is recommended by Dr. W. BRINTON for the relief of vomiting, painful nausea, and flatulence of ulcer of the stomach.

*Cannabis*, in extract, often answers admirably as a sedative, and would replace opium entirely were its effects more uniform.

\**Opium* is highly recommended by Dr. W. BRINTON in ulcer of the stomach. In his opinion, its efficacy in this affection is not due to its sedative or anodyne properties, but rather to its supporting the strength, buoying up the nervous system, and checking the waste or expenditure of the tissues generally. When vomiting is moderate, or where diarrhoea is prominent, pulvis kino compositus is a convenient formula. But when vomiting is excessive, and resists a combination of this powder with bismuth, opium is best borne in a solid form. Thus given, its effects are often very striking. Large and frequently-repeated doses are of great service in perforating ulcer of the stomach.

*Plumbi Acetas* often allays the severity of the symptoms.

*Ricini Oleum*, in a moderate dose, may often be given in the ordinary way without increasing the pain or vomiting. When the latter is frequent, however, the oil is best given in enema.

\**Turpentine* stupes often relieve the pain. When, however, the strength is exhausted by constant vomiting, *dry cupping* is preferred by Dr. W. BRINTON, as a more effectual means of relieving the pain. In comparatively recent cases in the young and well-nourished, *blisters* are to be preferred.

\**Enemata*. Life may be prolonged, and even in some cases preserved, in those ulcerous conditions of the stomach in which it is unadvisable or impossible to give food by the mouth, by the persevering use of enemata of beef-tea, milk, raw eggs, cod-liver oil, wine, and, in extreme cases, even diluted brandy or opium. The quantity of each should be as small as possible, and should rarely be repeated in less than three or four hours.

\**Ice*, in small lumps and raspings, greatly relieves the pain and vomiting.

*Leeches* to the epigastrium often relieve the pain, but their use is of doubtful propriety in the weak and cachectic.

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## HÆMATEMESIS.

DR. JACCOUD, PARIS.

There is no better treatment than that by ice, internally and externally. The mineral acids or alum may be given, but their efficiency is neither as rapid nor certain as that obtained from ice. Dry cups on the limbs and trunk are useful when the hemorrhage is copious.



FREDERICK T. ROBERTS, M. D., M. R. C. P., LONDON.

The judicious rules laid down by this author, in his treatise on *Practice*, are: bodily rest, and nutrition by enema, if the case is severe; small lumps of ice should be swallowed at intervals, and a light ice poultice to the epigastrium, followed by sinapisms if the vomiting is violent. It is of the utmost importance to check the emetic efforts, and if the means just mentioned are insufficient, recourse should be had to a few drops of dilute hydrocyanic acid in cold mucilage; morphia internally or by subcutaneous injection; or an enema containing tincture of opium. Should there be signs of sinking, stimulants are called for, and should be given by enema. The most efficient medicines are gallic acid or acetate of lead, in full doses, combined with opium; or oil of turpentine.

## RÉSUMÉ OF REMEDIES.

*Alum*, in doses of gr.vij-xij, in combination with opium, thrice daily, is useful, though inferior to sugar of lead.

*Ammonii Chloridum* is sometimes employed with advantage.

*Argenti Oxidum*, in doses of gr.ss-j, thrice daily, is highly recommended by Sir J. EYRE.

\**Ergotine* has been successfully employed by Mr. CHARLES STEWART (Edinburgh *Medical Journal*, December, 1871), in hypodermic injections of gr.iiij.

\**Ferri Nitratis Liquor*, in large doses, is very efficacious.

\**Gallici Acidum*. Dr. W. BRINTON recommends the following formula:—

716. R.	Acidi gallici,	℥ij	
	Acidi sulphurici diluti,	℥xl	
	Aquæ,	f.℥ij.	M.

Dose—A tablespoonful in a little water.

\**Ipecacuanha* often appears to exercise a powerful influence. It should be given in the manner recommended in hæmoptysis.

*Magnesie Sulphas*. Dr. BARLOW considers that in hæmatemesis and melæna it is advisable to clear out the bowels before resorting to astringents. For this purpose he employs the following formula:—

717. R.	Magnesie sulphatis,	℥j-ij	
	Acidi sulphurici diluti,	℥x	
	Aluminis,	gr.x	
	Syrupi papaveris,	f.℥ss	
	Infusi rosæ compositi,	f.℥xj.	M.

Make a drink. Take every four hours.

*Matico* has been advised.

\**Plumbi Acetas*, in doses of gr.ij-iiij, combined with acetate of morphia, gr.¼-ss, is very useful in controlling hemorrhage from the stomach whether idiopathic or from ulceration. The auxiliaries are the external application of cold, acidulated drinks, perfect rest, and anti-phlogistic diet.



\**Sulphuricum Acidum Dilutum*, alone or combined with gallic acid, is a very efficient remedy.

*Tannicum Acidum*, in doses of gr.ijj--vj, three or four times a day, is a useful astringent and tonic, only contra-indicated by the presence of inflammatory symptoms.

*Turpentine* deserves a trial after the failure of less nauseous remedies.

\**Ice*, in lumps, coming in contact with the bleeding vessels, acts as a powerful astringent.

## HEPATITIS, ACUTE.

PROF. W. C. MACLEAN, M. D., LONDON.

This distinguished surgeon strongly opposes the usual treatment of acute hepatitis by venesection, mercurials and purgatives, and recommends in place of it *ipecacuanha*, in large doses, gr.xx-xxx, repeated every few hours until the symptoms subside:—

718. R.	Pulvis ipecacuanhæ,	℥j	
	Mucilaginis acaciæ,	q. s.	M.

Make four pills. The whole to be taken every sixth hour, day and night.

Dr. ALFRED A. WOODHULL, U. S. A., has recently published some cases corroborating the value of this treatment. Dr. MACLEAN considers *ipecacuanha* in hepatitis almost as valuable as in dysentery.

## HEPATITIS, CHRONIC.

J. M. DA COSTA, M. D., PHILADELPHIA.

A certain amount of drain should be kept up from the portal circulation. For this purpose, very small doses of *podophyllin*, *cream of tartar*, or *Rochelle salts*, now one and now another, are useful. A very good pill is the following:—

719. R.	Podophyllin,	gr.vj	
	Capsici,	gr.iv	
	Pulveris rhei,	gr.xij.	M.

For twelve pills; one on alternate nights.

In order to reduce the state of induration or enlargement of the



liver, the *mineral acids* may be employed. Or, when the case is not chronic, the salts of soda, as in the following formula:—

720. R.	Sodæ bicarbonatis,	℥ <sup>ss</sup>	
	Infusi gentianæ,	f.℥vj.	M.

A tablespoonful three times a day, after or between meals.

Should this fail, employ *nitro-muriatic acid baths*. *Sulphur baths* are of advantage; or those of *sulphuret of potassium*; or the use of *sulphur ointment*, followed by warm baths.

#### SIR RANALD MARTIN, LONDON.

*Nitro-muriaticum acidum* is employed, both externally and internally, with great advantage in chronic hepatitis, and in the advanced stages of acute hepatitis and congestion of the liver. It is most serviceable in the form of a *bath*, for which the following directions are given (*Lancet*, December 9th, 1865) by Sir RANALD MARTIN:—1. The proportions of acid are given by the following formula:—

721. R.	Acidi muriatici,	f.℥iij	
	Acidi nitrici,	f.℥ij	
	Aquæ,	f.℥v.	M.

2. Two gallons of water (about ten bottles) may suffice for a bath.
3. To each gallon of water add f.℥iij of the above acid mixture.
4. The bath thus prepared will keep in use for three days, by adding f.℥ss of the acid mixture and Oj of water, morning and evening, to make up for the waste by evaporation.
5. A portion only of the bath to be heated for use, after which it is to be added to the remainder, so as to make the whole of a comfortable warmth (96°–98°).
6. Let both feet be placed in the bath, while the inside of the legs and thighs, the right side (over the liver), and inside of both arms, are sponged alternately. This should be continued for ten or fifteen minutes, morning and evening.
7. While using the bath, a gentle aperient should be taken every morning.
8. Earthenware or wooden vessels should be preferred for foot-baths, and all the sponges and towels should be kept in cold water, as the acid corrodes them.
9. In urgent cases, a general bath, to envelope the whole body, may be used.
10. If the acid bath create much irritation of the skin, the quantity of the acid may be diminished.
11. The influence of the acid is not in the least degree counteracted by opium, even when exhibited in the largest doses.



## RÉSUMÉ OF REMEDIES.

*Colchicum* is advised by Dr. COPLAND, to increase the biliary secretion in chronic inflammation or enlargement of the liver, and to promote the resolution of the former and the diminution of the latter state.

*Hydrargyri Bromidum* has been administered with relief in chronic hepatitis with enlargement.

*Hydrargyri Iodidum Rubrum*, in ointment, is recommended by Dr. W. C. MACLEAN in malarial enlargements of the liver and spleen, to be rubbed in for ten minutes in the morning, and the patient exposed to the powerful heat of a fire as long as he can endure it.

*Hydrargyri Chloridum Mite*. Mercury is much less employed than formerly in chronic hepatic affections, it having been superseded by nitro-muriatic acid and iodide of potassium.

*Iodine* and its preparations are beneficial in chronic hepatic affections, but their indiscriminate use is to be avoided.

*Nitricum Acidum*, with sarsaparilla or taraxacum, is often productive of good in chronic hepatitis, especially of old persons, where mercurials have been largely used. Nitro-muriatic fomentations and baths may be employed at the same time.

\* *Potassii Iodidum*, combined with taraxacum, is of value in chronic inflammation and enlargement of the liver. Dr. COPLAND has found that it is chiefly when enlargement, obstruction or torpor of the liver occurs after periodic fevers, or in the scrofulous diathesis, that iodide of potassium, employed internally or externally, or both, and in conjunction with other deobstruents, as liquor potassæ, or alternated with purgatives, is of most benefit.

\* *Taraxacum* is an efficient remedy in chronic inflammation of the liver; where mercury is advisable, rendering it more efficient, and under certain circumstances taking its place advantageously. Sir RANALD MARTIN has found in indolent enlargements of the liver, accompanied with torpid action of the viscus, that mercury is of little service, and that he has derived more advantage from the following formula, conjoined with a spare diet and the external application of cantharides:—

722. R.	Extracti taraxaci,	gr. xxxvj	
	Extracti alōes,	gr. xij	
	Extracti acetici colchici,		
	Pulveris ipecacuanhæ,	āā	gr. vj. M.

Make twelve pills. Take two every night.

## JAUNDICE.

ROBERTS BARTHOLOW, M. D., CINCINNATI.

Excellent results have been obtained by this practitioner in malarial and catarrhal jaundice by the use of manganese:—

723. R.	Chinoidin,	ʒij	
	Manganesii sulphatis exsiccata,	ʒij.	M.

For twenty pills. One three times a day, in malarial jaundice.



724. R. Fel bovini purificati, ʒij  
 Manganesii sulphatis exsiccatae, ʒij  
 Resinæ podophylli, gr.v. M.  
 For twenty pills. One three times a day, in catarrhal jaundice.

In similar cases he also finds the following of great use:—

725. R. Quiniæ sulphatis, ʒij  
 Ferri sulphatis exsiccatae, ʒij  
 Acidi arseniosi, gr.j. M.  
 To make twenty pills. One thrice daily, in malarial jaundice.

PROF. WILLIAM PEPPER, M. D., PHILADELPHIA.

In simple jaundice—acute congestion of the liver—the indications are to check vomiting, to relieve the congestion, and to start the bile. To accomplish the first, give hydragogue cathartics, elaterium, bitartrate of potash, etc.; or, if the stomach is too irritable, administer an enema of croton oil, gtt.ij, in emulsion. The congestion of the stomach and liver can be relieved by counter-irritation, as by a large blister over the epigastrium. This is very effective to arrest the vomiting. By the mouth, give the following:—

726. R. Hydrargyri chloridi mitis, gr.iiij  
 Pulveris opii, gr.ij  
 Bismuthi subnitratiss, ʒijss. M  
 Make six powders. One to be given every three hours.

This combination powerfully aids the mercurial in relieving the hepatic congestion, and stimulating the gastro-intestinal glands. The diet in such cases should be restricted to milk (*Medical and Surgical Reporter*, November 27th, 1875).

PROF. A. GUBLER, FACULTÉ DE MEDECINE, PARIS.

727. R. Aloës socotrinæ,  
 Gambogiæ,  
 Hydrargyri chloridi mitis, āā gr.xv  
 Syrupi, q. s. M.  
 Divide into ten pills. Order one or two a week, to keep the bowels soluble, in icteric disease of the liver.

MIDDLESEX HOSPITAL, LONDON.

728. R. Pilulæ hydrargyri, gr.xxx  
 Digitalis pulveris,  
 Scillæ pulveris, āā gr.v. M.  
 Divide into ten pills. One morning and evening, in icterus, to eliminate the coloring matter of the bile from the blood.



## RÉSUMÉ OF REMEDIES.

*Aloes* has been used with benefit in jaundice.

*Ammonii Chloridum*, in doses of gr.xx every five hours, has, in the hands of Dr. ANSTIE, restored the biliary secretion, in a few doses, when it had been suppressed by a powerful nervous shock or mental perturbation. In his opinion it is one of the most powerful of all biliary functional restoratives.

*Benzoicum Acidum* has recently attracted attention as a remedy in jaundice due to suppression of the biliary secretion.

*Colchicum*, in small doses, combined with mild mercurials, or soap, or alkalies, or with magnesia or the neutral salts, according to circumstances, has been prescribed by Dr. COPLAND with benefit. It must be continued for a considerable time, and carefully watched. If there be much debility, or if it produce depression, it should be combined with camphor.

*Ether*, from its power of dissolving cholesterine and its anti-spasmodic properties, has been recommended as an internal remedy in jaundice depending on the presence of gall-stones.

*Hydrargyri Chloridum Mite*. Jaundice sometimes yields rapidly to a calomel purgative (gr.v), followed by a saline, which, however, proves useless when the affection is connected with obstruction by gall-stones, or organic diseases of the liver.

*Magnesii sulphas*. The following formula is sometimes useful in severe forms of jaundice :—

729. R.	Magnesii sulphatis,	ʒss-j	
	Magnesii carbonatis,	gr.xv	
	Spiritūs ammonii aromatici,	℥xxx	
	Aquæ,	f.ʒx.	M.

Make a drink. Take thrice daily.

*Nitro-muriaticum Acidum Dilutum* is useful both internally and externally, in the form of a bath. It is contra-indicated if there be inflammatory action present.

\**Podophyllin* is often a very reliable remedy in jaundice.

*Potassii Chloras*, combined with carbonate of soda, is useful in chronic or asthenic jaundice, accompanied by a torpid state of the liver.

*Potassii Sulphas* is recommended by Dr. A. T. THOMSON as more useful than other saline purgatives in jaundice.

*Sanguinaria*, in the form of the powder (gr.ij-ʒ), or the infusion, has been employed with advantage in jaundice and torpor of the liver.

*Taraxacum*, combined with small doses of colchicum, has been found serviceable in jaundice depending upon hepatic disease.

\**Cathartics*. Dr. GROSS states that in jaundice depending upon hepatic derangement, after bilious evacuations have been produced, an active aperient, every second or third day, for the space of ten days or a fortnight, should never be omitted, so as to carry off the remains of the disease, and prevent a relapse. This is a simple but successful practice which should not be neglected.



## TORPIDITY AND FUNCTIONAL DERANGEMENT OF THE LIVER.

CHARLES MURCHISON, M. D., LL.D., F. R. S., LONDON.

In the "Croonian Lectures" of 1874 this eminent authority discussed the functional derangements of the liver and their treatment. Commencing with *diet*, he recommends one chiefly of stale bread, plainly cooked mutton, white-fish, poultry, game, eggs, a moderate amount of vegetables, and weak tea, cocoa, or coffee. In severe cases, potatoes, rice, sago and fruits have to be given up; milk suits some, not all. The principal meal should be in the morning, and the quantity not beyond the needs of the system. All alcoholic drinks should be prohibited. *Cholagogues*: great advantage is derived from aperient medicines; salines are the best, as sulphate of magnesia, sulphate of soda, tartrate of potash and soda, Friederichshall, Pullna, or other saline water; as to the benefit of mercury, our author says that the skepticism of the most doubting physician would be removed should he unfortunately find it necessary to test its efficacy in his own person. Calomel is the form he prefers. Podophyllin he regards as less certain in its action and more liable to cause griping. Colchicum is a useful adjunct to other aperients. Taraxacum, he thinks, has no specific action, but is useful as a mild aperient, and may be advantageously combined either with alkalies or mineral acids. *Alkalies*: these are next in importance. One grain of carbonate of lithia, or of carbonate of ammonia, nearly equals a grain and a half of carbonate of soda, or two grains of carbonate of potash. It is well to suspend their use occasionally, as, when long continued, they derange gastric digestion. *Chloride of ammonium* has a great and well-deserved reputation in hepatic congestion and other functional derangements of the liver:—

730. R. Ammonii chloridi purificati,	3 <sup>ss</sup>	
Aquæ menthæ piperitæ,	f. 3iij.	M.
Dessertspoonful three times a day.		

It may be combined with either alkalies or mineral acids. The last-mentioned remedies our author considers of minor value in these complaints. *Tonics* are apt to disagree in many cases of functional hepatic derangement. Neither iron nor quinine acts well. Gentian, chiretta, cascarilla, serpentaria and nux vomica



are preferable to preparations of cinchona. Arsenic suits some patients. *Opium* is contra-indicated except in those functional hepatic troubles which arise in diabetes.

### RÉSUMÉ OF REMEDIES.

- Ammonii Chloridum* is worthy of trial when there is want of biliary action.
- Hydrargyri Pilulæ*. Abernethy's practice, in bilious derangements, of giving, almost indiscriminately, five grains of blue pill at night and a senna draught in the morning, is still continued by many practitioners.
- \**Ipecacuanha*, in small and long-continued doses, is frequently productive of great benefit in functional derangement of the liver.
- Iridin* is a cholagogue aperient, gentler in its action than podophyllin. It is very useful in a sluggish state of the bowels arising from torpidity of the liver, or when the stools are pale, particularly in the intervals of overt attacks in gouty persons.
- Leptandrin* is useful in torpidity of the liver, in which case it is said to be a valuable adjunct to podophyllin and iridin.
- \**Podophyllin* is now much employed in torpor of the liver.
- Sanguinaria* has been used with evident advantage in torpidity of the liver, the powder (gr.ij-v) or infusion being preferred to the tincture.
- Senna*, in infusion (f.℥j-ij), either alone or combined with sulphate of magnesia (℥ij-iv) or tartrate of potash (℥ij-℥ij), is an efficient purgative in bilious derangements.
- \**Taraxacum* is a valuable remedy in torpor of the liver.
- Turkish Baths* are sometimes of great advantage as excitants of the liver.

## PYROSIS.

PROF. PIORRY, PARIS.

- |         |                         |      |           |
|---------|-------------------------|------|-----------|
| 731. R. | Sodii bicarbonatis,     | ℥iss |           |
|         | Aquæ destillatæ,        |      |           |
|         | Syrupi aurantii florum, | āā   | f.℥j      |
|         | Olei anisi,             |      | gtt.j. M. |

For one dose, in pyrosis.

- |         |                     |         |    |
|---------|---------------------|---------|----|
| 732. R. | Quiniae sulphatis,  | gr.xxij |    |
|         | Pepsinæ,            | ℥vss    |    |
|         | Extracti absinthii, | q. s.   | M. |

Divide into forty pills. Two before each meal, in functional derangements of the stomach, particularly pyrosis, flatulence and gastralgia after eating.

- |         |                     |        |    |
|---------|---------------------|--------|----|
| 733. R. | Sodii bicarbonatis, | gr.xiv |    |
|         | Tincturæ columbæ,   | f.℥j   |    |
|         | Aquæ destillatæ,    | f.℥ij  |    |
|         | Syrupi gentianæ,    | f.℥j.  | M. |

To be taken during the day, in the same manner as the above formula.



734. R. *Magnesiae*, ʒss  
*Sodii bicarbonatis*, ʒj  
*Cretæ præparatæ*, ʒiv  
*Sacchari*, ʒijss. M.

Divide into ten powders. One before each of the two principal meals, in acid dyspepsia.

735. R. *Magnesiae*, gr.iss  
*Bismuthi subnitratiss*, gr.iv-vij  
*Opii pulveris*, gr.ss. M.

For one dose, to be taken before eating, in acid dyspepsia.

#### DR. GUIPON, PARIS.

736. R. *Ferri redacti*, ʒijss  
*Magnesiae*,  
*Rhei pulveris*, āā ʒss. M.

Divide into ten powders. One to be taken before each of the two principal meals in acid dyspepsia of chloro-anæmic women.

737. R. *Cretæ præparatæ*,  
*Rhei pulveris*, āā ʒij  
*Opii pulveris*, gr.iv. M.

Divide into twelve powders. One half an hour before each of the two principal meals, to stimulate the appetite and quiet dyspeptic pain.

738. R. *Bismuthi subnitratiss*, ʒvij  
*Magnesi carbonatis*, ʒijss  
*Calcii carbonatis præcipitatæ*, ʒv  
*Sacchari*, ʒiij  
*Acaciæ pulveris*, ʒi  
*Mucilaginis acaciæ*, f.ʒij  
*Aquæ rosæ*, q. s. M.

Divide into one hundred troches. Two or three after the principal meals, in acid dyspepsia.

#### RÉSUMÉ OF REMEDIES.

*Alum*, in doses of ʒj thrice daily, in the form of an electuary, has been strongly recommended.

*Argenti Nitras* is an excellent remedy.

*Argenti Oxidum* has been employed with marked benefit. It must not, in these cases, be combined with creasote, as the combination causes violent decomposition and the development of great heat, and even flame.

\**Benzoin*. A fluid drachm of the tincture, with mucilage, is said to be efficacious in many cases.

\**Bismuthi Subnitratis*, combined with opium, seldom fails to afford relief.

*Carbolicum Acidum* has been employed with success by Dr. PODMORE JONES (*Practitioner*, November, 1868), in the following formula :—

739. R. *Acidi carbolici*, gr.j  
*Alcoholis*, f.ʒj. M.

Twenty-five drops in a wineglassful of water, an hour before each meal.



*Gallicum Acidum* is of benefit in cases accompanied by organic disease of the stomach, or by disease of the liver.

\**Kino Pulvis Compositus* is said by Sir T. WATSON to be an admirable remedy in this affection, in doses of gr. x thrice daily.

*Liquor Ferri Nitratis*, in doses of gtt. x-xv thrice daily, is useful in those cases where tonics and astringents are indicated.

*Lupuli Extractum* has been found serviceable.

*Magnesia Carbonas* is occasionally an effectual remedy.

\**Nux Vomica* is very useful in many cases. Dr. BARLOW recommends the following formula :—

740. R.	Extracti nucis vomicæ,	gr. iss	
	Argenti nitratis,	gr. ij	
	Extracti lupuli,	gr. xij.	M.

Divide into six pills. One thrice daily.

\**Opium*, in combination with gentian, frequently affords speedy relief.

\**Sulphurosum Acidum*, in the hands of Dr. LAWSON (*Practitioner*, September, 1868), has produced the best effects, in doses of f. ʒss-j thrice daily, shortly before meals, in plain distilled water.

## VOMITING.

### RÉSUMÉ OF REMEDIES.

*Ammonii Citras* has been recommended in the vomiting attendant on ulcer of the stomach, but Dr. W. BRINTON considers that the salts of ammonia do more harm than good in these cases.

*Ammonii Chloridum* is said to relieve the vomiting attendant on scirrhus of the stomach more promptly and uniformly than any other remedy.

*Armoracis Radix*. Dr. TILT recommends, in vomiting connected with uterine affections, a small portion of horse-radish scraped and moistened with vinegar.

*Arseniosum Acidum*, in the form of Fowler's solution, is advised by Dr. RINGER, in the morning vomiting of drunkards.

*Bismuthi Subnitratis*, especially when combined with hydrocyanic acid, often speedily allays vomiting in connection with stomach diseases, but in sympathetic vomiting (*e. g.*, from uterine disorder) it has little or no effect.

*Calceis Aquæ* sometimes succeeds when hydrocyanic acid and other remedies fail. It has less influence on sympathetic vomiting than on that connected with functional derangement of the stomach.

\**Calumba* is useful in many forms of vomiting, especially in that of pregnancy. Its efficacy is greatly increased by combination with hydrocyanic acid.

*Carbolicum Acidum*, in drop doses of the crystallized acid liquefied by heat, in mucilage, thrice daily, is recommended (*British Medical Journal*, March 13th, 1869) in the vomiting of pregnancy and other forms of sympathetic vomiting.

*Carbonic Acid*, in the form of an effervescing draught, is often an effective remedy.



*Cerii Oxalas* appears to be an uncertain remedy, but is sometimes effective in the sickness and vomiting of uterine disease.

\**Chloroform*, in doses of a few drops, is often very useful in obstinate vomiting. Sir C. Locock recommends (*British Medical Journal*, August 22d, 1868) chloroformization, almost to insensibility, in obstinate vomiting of pregnancy.

*Cinnamomum* in aqueous infusion is often of benefit in continued nausea and vomiting.

*Creasotum* is considered by many as an overrated remedy in vomiting. Dr. RINGER considers the principal cause of its failure as due to its being given in too large doses. He obtains the best effects by adding just sufficient creasote to water to make it taste distinctly, but not strongly of the medicine, and administering of this a dessertspoonful frequently. He finds it effectual given in this manner, in allaying nausea and retching, though some consider it to have less power over actual vomiting.

\**Hydrocyanicum Acidum*, given in an effervescing draught, is a very efficient remedy in vomiting arising from any morbid conditions.

\**Ipecacuanha* is considered by Dr. RINGER to have few equals in checking some forms of vomiting. In numerous instances he has found drop doses of the wine, administered every hour or thrice daily, according to the urgency of the case, check vomiting of pregnancy, the morning vomiting of drunkards, the vomiting which accompanies general weakness after acute diseases, and that of acute catarrh of the stomach, in children. That form of vomiting after meals in which there is no nausea or pain, or even discomfort, is quickly stopped by these small doses of ipecacuanha. Even in vomiting from cancer of the stomach he has sometimes succeeded with it after the failure of other remedies. Dr. C. D. PHILLIPS states (*Practitioner*, November, 1869) that its beneficial operation is clearly discernible in most cases of continued and obstinate retching, or vomiting where the stomach is not primarily affected, but disturbed by sympathy with some other organ or part of the body, whether the primary affection be acute or chronic. Dr. C. FULLER bears testimony also (*Lancet*, December 4th, 1869) to its value in the vomiting of pregnancy. He found single drops of the wine in a teaspoonful of water every hour, to arrest obstinate vomiting in the course of two days. But it failed in his hands in the treatment of vomiting of drunkards.

*Magnesia*, in doses of gr.xv-xx, is sometimes given with advantage in sympathetic vomiting.

*Magnesii Carbonas* also occasionally affords relief in sympathetic vomiting, especially in that of pregnancy.

*Opium*. A few drops of laudanum, given in beef-tea, as an enema, and repeated as necessary, is sometimes useful in the vomiting of pregnancy. Dr. GRAILY HEWITT recommends in those cases an opiate liniment rubbed over the hypogastric region, or morphia applied endermically. Hypodermic injections of morphia are also serviceable.

*Sodii Carbonas* is beneficial in vomiting arising from acidity of the stomach.

*Nux Vomica*, in the form of the tincture, is recommended in the vomiting of pregnancy. Dr. DOUGLAS POWELL states (*Practitioner*, November, 1868) that the tincture, in doses of ℥x, will often arrest the vomiting of phthisis. Dr. BARLOW recommends, in vomiting connected with malignant disease of the stomach, the following formula:—

741. R.	Extracti nucis vomicæ,	gr.j	
	Extracti conii,	gr.xij.	M.

Make six pills. Take one three times a day.



*Strychnia.* Dr. TILT recommends, in vomiting connected with uterine disease, the following formula:—

742. R.	Strychniæ,	gr. $\frac{1}{4}$	
	Tincturæ zingiberis,	f. $\overline{5}$ vj	
	Aquæ,	f. $\overline{3}$ iv.	M.

Dose—A teaspoonful every one or two hours.

*Sulphurous Acid*, in doses of ℥xxx thrice daily has been employed by Dr. DRYSDALE, with success (*Lancet*, July 24th, 1869) in constant vomiting and eructation.

*Tartaricum Acidum*, in effervescing draughts, sometimes succeeds in allaying vomiting.

*Blisters.* A small blister over the epigastric region frequently effectually checks vomiting arising from functional or nervous disorder of the stomach, and also that consequent on fevers.

*Ice* in lumps, or minute quantities of iced brandy and water, or champagne, given every hour, is useful in severe vomiting attendant on pregnancy or uterine disease.

*Leeches.* Dr. TILT states that in vomiting connected with uterine affections, after the failure of ordinary measures, he has, on several occasions, seen it suddenly checked by the application of six leeches to the pit of the stomach, although there was no sign of inflammation there, and the patient's debility was such as not to justify loss of blood. The same procedure sometimes succeeds in idiopathic vomiting.







747. R.	Potassæ iodidi,	ʒi	
	Ferri citratis,	ʒi	
	Spiritus chloroformi,	ʒij	
	Spiritus ammonii aromatici,	ʒij	
	Aquæ,	ad. ʒxij.	M.

Two tablespoonfuls to be taken three times a day.

748. R.	Linimentum terebinthinæ,	ʒvj.
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To be applied over the kidneys twice or thrice daily.

A flannel binder to be worn round the loins.

### RÉSUMÉ OF REMEDIES.

\* *Antimonii et Potassii Tartras* is recommended by Dr. BARLOW in the acute forms of albuminuria. He considers it indicated by the nature of the affection, and calculated to equalize the circulation, subdue the inflammatory action and restore the functions of the skin. But he does not employ it to the exclusion of other remedies, as moderate venesection, hydragogue cathartics, the warm bath, and the application of large linseed-meal poultices to the loins.

*Belladonna* will, in the opinion of Dr. HARLEY, prove very serviceable in chronic albuminuria, provided that the kidney has not passed into the degenerative state bordering on fatty degeneration.

*Cantharis*, internally, has, it is said, been employed with benefit in purely chronic cases, but must be used with great caution.

\* *Ferri Iodidum* is often beneficial, particularly in old broken down constitutions.

*Ferri Chloridi Tinctura* is one of the most generally useful preparations of iron in albuminuria, possessing diuretic as well as chalybeate properties.

*Gallicum Acidum*, in doses of gr.x, thrice daily, has been successfully employed.

*Potassii Sulphuretum* has been recommended in the following formula, to establish free diaphoresis:—

749. R.	Potassii sulphureti,	gr.v	
	Tincturæ guaiaci ammoniatæ,	f.ʒss	
	Liquoris ammoniæ acetatis,	f.ʒss	
	Aquæ,	f.ʒj.	M.

For one dose, to be taken at bedtime, followed by a pint of hot whey.

*Sodii Carbonas* has been recommended in albuminuria, on the ground that alkalescence is a necessary condition of the blood; that the free alkali is soda; that when this constituent is deficient, the result is coagulation of blood in the capillary vessels and ensuing inflammation, and that potash or soda (uncombined or as carbonates), taken into the stomach, have the power of rendering the urine alkaline and dissolving fibrine. The following formula may be employed:—

750. R.	Sodii carbonatis,	ʒij	
	Liquoris potassæ,	f.ʒij	
	Decocti chondri crispi,	f.ʒviij.	M.

A tablespoonful every two hours, in milk. *Tartrate of iron* may be added when anæmia is very marked.



*Tannicum Acidum*, in from gr.xxx-lx per day, has been advised in the anasarca accompanying albuminuria.

*Tiglii Oleum* is one of the best hydragogue cathartics which can be given in albuminuria, as it produces copious evacuations with less sickness and discomfort than elaterium.

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## BRIGHT'S DISEASE.

ALFRED L. LOOMIS, M. D., OF NEW YORK.

This author is convinced that the diaphoretic and cathartic plan of treatment is wrong, and its apparently good results deceptive, and prefers the following:—

In the acute stage of parenchymatous nephritis, whatever may have been the exciting cause, the patient must be kept in bed, in a large, well-ventilated apartment, with a temperature of 75° Fah.; milk should be his only article of diet. Dry cups should be applied over the kidneys, followed by poultices of digitalis leaves, and the infusion of digitalis leaves should be administered at the rate of half an ounce every two hours for twenty-four hours, after which it may be continued at longer intervals, so long as uræmic symptoms are urgent. When the flow of urine commences, the digitalis should be discontinued, and diluent drinks freely administered to keep up the diuresis. If renal secretion is not restored within twenty-four hours after the commencement of this treatment, warm baths, or hot air baths, should be used in addition; and if the symptoms remain urgent, hydragogue cathartics may be given.

In the later stages, those commonly known as chronic Bright's disease, the plan of treatment is essentially tonic. Iron and cod-liver oil are the two great remedial agents, and should be daily administered if they do not disturb the stomach. Milk should be the principal article of diet, and the patient should seek a warm and equable climate. The milk may be taken cold or hot, from a half pint to a pint at a time. Wine, in moderation, may be taken with the food. No depletory remedies should be employed in this stage, except in times of an emergency, when, from some sudden renal congestion, the remaining healthy portion of the kidney is impaired, and active uræmic symptoms present themselves. At such times, a hot air bath, hydragogue cathartics, or stimulating diuretics are to be employed, but with great caution.



WM. AITKEN, M. D. EDINBURGH.

751. R. *Acidi gallici*, ʒj-ij  
*Acidi sulphurici diluti*, f.ʒss  
*Tincturæ lupuli*, f.ʒj  
*Infusi lupuli*, f.ʒvj. M.

A tablespoonful three times a day when the urine is "smoky," or when blood is seen on microscopic examination.

The objection to these remedies is the constipation they are apt to induce. Two or three movements from the bowels should be secured daily. For this purpose the medicine most generally useful is:—

752. R. *Pulveris jalapæ compositi*, ʒss-j  
*Pulveris zingiberis*, gr.ij. M.

For one dose. To be taken in the morning, fasting, in a wineglass of water.

When, by repetition, this loses its effect, and eletarium be not deemed advisable, the following saline draught may prove efficient:—

753. R. *Magnesiae sulphatis vel*,  
*Sodæ sulphatis*, āā ʒj-ij  
*Ætheris sulphurici*, ℥x  
*Acidi sulphurici diluti*, ℥x  
*Ferri sulphatis*, gr.ij-ij  
*Aquæ menthæ viridis*, f.ʒiij-iv. M.

For one dose. To be taken the first thing in the morning, once or twice a week. It ought to produce two or three loose and watery evacuations.

When dyspeptic symptoms predominate, the following pill is useful (recommended by Dr. GOODFELLOW):—

754. R. *Ferri sulphatis*, gr.j  
*Extracti nucis vomicæ*, gr.ss-j  
*Pilulæ galbani compositæ*, gr.ij-iiij. M.

For one pill. To be taken twice or thrice daily.

If there be co-existent bronchitis, order:—

755. R. *Spiritus ætheris nitrosi*, f.ʒiiss-iiij  
*Oxymellis scillæ*, f.ʒss  
*Liquoris ammoniæ acetatis*, f.ʒiv. M.

A tablespoonful to be taken immediately with the above pill.

If much nausea prevail, add to the prescription:—

756. R. *Acidi hydrocyanici diluti*, ℥xxiv.  
 And apply mustard to the stomach.



For the want of sleep often complained of, henbane should be given instead of opium, which will constipate.

If diarrhœa occur, it must not be too suddenly checked.

Order:—

757. R. Spiritus ammoniæ aromatici,                      aa      f.ʒj.      M.  
Tincturæ kino,

A teaspoonful in water after every loose stool.

This in general will be all that will be found necessary.

Mercurial preparations are dangerous in Bright's disease, because of the tendency to salivation. The following may be used instead:—

758. R. Podophyllin,                      gr. ¼-j  
Extracti hyoscyami,                      gr.j.      M.

For one pill.

The following is also serviceable as an occasional mild aperient pill:—

759. R. Pilulæ rhei compositæ,                      gr.ij-ijj  
Extracti nucis vomicæ,                      gr.j  
Pilulæ galbani compositæ,                      gr.ij.      M.

For one pill.

THOMAS KING CHAMBERS, M. D., ETC., LONDON.

760. R. Tincturæ ferri chloridi,                      f.ʒij  
Potassæ nitratis,                      ʒij  
Aquæ camphoræ,                      f.ʒiv.      M.

A tablespoonful in water thrice a day, and a hot-air bath every night.

J. M. DA COSTA, M. D., PHILADELPHIA.

For the treatment of an acute case, following scarlatina:—

761. R. Pulveris ipecacuanhæ compositi,                      gr.ijj  
Potassæ nitratis,                      gr.v      M.

For one powder. To be taken at night.

And,

762. R. Liquoris ammoniæ acetatis,                      f.ʒijj  
Spiritus ætheris nitrosi,                      ℥xx  
Syrupi tolutani,                      ℥xxxvij  
Tincturæ digitalis,                      ℥ijj.      M.

For one dose, thrice daily.

The skin should be made to act freely by means of hot baths and a few drachms of Rochelle salts, administered on alternate days. The diet should be mild and unirritating, all stimulants being avoided.



763. R.	Tincturæ ferri chloridi,	f.℥ss	
	Acidi acetici,	f.℥ss.	
Mix and add,			
	Liquoris ammoniæ acetatis,	f.℥v	
	Curacœ,	℥ij.	M.
Teaspoonful thrice daily.			

This recipe, a modification of Basham's mixture, is useful in chronic Bright's disease, and in all those cases in which the union of a chronic and diuretic effect is desired.

DR. FELIX VON NIEMEYER, PROFESSOR UNIVERSITY OF TÜBINGEN.

The loss of albumen from the blood being the immediate cause of most symptoms of the disease, the most important task of the physician is to cover the loss of albumen by a diet rich in protein substances and by appropriate medication. Soft-boiled eggs, milk, strong meat broths and roast beef, in as large quantity as the patient is able to digest, are probably the best preventives of the dropsy. Besides this, a moderate quantity of beer or good wine should be prescribed, as by the use of these the waste of tissue is retarded and nutrition promoted. Quinine and iron are the most suitable medicines. Our author has obtained most brilliant results, where all other treatment had failed, by putting the patients upon an exclusive diet of milk. They took no medicine whatever, but drank five or six pints of cow's milk daily. After the "cure" had been continued in this manner for about five weeks, some of the patients, who, prior to the treatment, had been in the most wretched condition, had got rid of their dropsy, recovered an appearance of health, and regained so much strength as even to be able to perform hard labor.

If the above measures fail in averting or allaying the dropsy, active diaphoresis is strongly to be recommended. Patients in an advanced state of dropsy often rid themselves of it completely in a few weeks by the daily use of a hot bath, of a temperature of 80° to 100° F., followed by sweating for two hours in woolen blankets. Debilitated patients sometimes, however, suffer so much from this treatment as to compel its discontinuance.

Whatever the theoretical objections to the employment of diuretics may be, yet, in desperate cases, recourse should always be had to them. Squills and other stimulating diuretics must not be employed without the utmost caution. But there are certain salts, particularly cream of tartar, which are decidedly beneficial in their



effects. The free use of buttermilk, conjoined with the employment of cream of tartar and small doses of Dover's powders, will prove serviceable.

The drastic cathartics should only be resorted to in cases of extreme need, since the patient is liable to be affected by them, and since, by their persistent use, the digestion becomes impaired. Those most frequently employed are colocynth and

764. R. Elaterii, gr.  $\frac{1}{2}$ -ss.  
For one dose, as occasion requires.

THOMAS HAWKES TANNER, M. D., ETC., LONDON.

765. R. Salacini, ʒij  
Glycerinæ, f. ʒj  
Tincturæ aurantii corticis, f. ʒij. M.  
A teaspoonful in a wineglassful of water, night and morning.

Often useful in imparting a temporary sense of renovation.  
So also is,

766. R. Ferri et ammoniæ citratis, ʒss  
Spiritus vini gallici, f. ʒj  
Vini pepsinæ, f. ʒss  
Aquæ, f. ʒijss. M.  
One-half to be taken every day at dinner.

For the administration of elaterium, when indicated, our author employs the following formulæ:—

767. R. Elaterii, gr. iss  
Pulveris capsici, gr. lx  
Hydrargyri chloridi mitis, gr. xij  
Extracti hyoscyami, gr. xvij. M.  
For twelve pills. Two to be taken at a dose.

The capsicum prevents the nausea which the elaterium often produces. If a very active purgative is required, the dose may be doubled.

768. R. Elaterii, gr. j  
Spiritus ætheris nitrosi, f. ʒss  
Liquoris ammoniæ acetatis, f. ʒj  
Syrupi zingiberis, f. ʒij. M.  
One small teaspoonful in a wineglassful of water, every two hours, until the bowels are freely acted on.



## RÉSUMÉ OF REMEDIES.

*Elatarium* is a useful purgative when there is much dropsy, but it is best to combine it with hyoscyamus, as it sometimes causes exhausting diarrhoea, especially if given after symptoms of uræmic poisoning have set in.

*Guaiacum*, in tincture or decoction, is regarded by Dr. COPLAND as the best diuretic in Bright's disease, especially when the skin is cool as well as dry.

*Ipecacuanha*, in the form of Dover's powder, (gr.v-viij, thrice daily), is not only a useful diaphoretic in Bright's disease, but also allays pain and irritability, especially if assisted by a warm bath every other evening, or oftener.

*Potassii Bitartras* is recommended as a diuretic by Prof. NIEMEYER.

*Potassii Iodidum* is said by Dr. RINGER to prove sometimes of signal service, even when the dropsy has been extensive and the urine very scanty.

*Scoparius*, in decoction, combined with nitric ether, is recommended by Dr. BARLOW, when the renal secretion is very deficient. A pint of the infusion may be given.

*Diuretics.* Drs. BRIGHT, OSBORNE, WATSON, and others, condemn the use of diuretics, particularly those which are stimulating, in inflammatory dropsy attendant on granular disease of the kidneys. Dr. CHRISTISON believes, however, that they can be used without risk, and advises the following formula:—

769. R.	Pulveris digitalis,	gr.i-ij	
	Potassii bitartras,	3j-ij.	M.
	Ter in die, ex aq.		

Diuretics may be sometimes employed, with good results, by the *endemic* method.

## CYSTITIS.

PROFESSOR S. D. GROSS, M. D., D. C. L., OF PHILADELPHIA.

In the early stages of the complaint the remedies are local and general bleeding, cathartics and diaphoretics, with low diet. When there is no marked biliary derangement, castor oil is the best purgative. When such is present, calomel, either alone or with jalap. After depletion and catharsis, the following "antimonial and saline mixture" seldom fails to relieve the symptoms:—

770. R.	Antimonii et potassii tartratis,	gr.ijss	
	Magnesiæ sulphatis,	3ij	
	Morphiæ sulphatis,	gr.ij	
	Tincturæ veratri viridis,	f.3iss	
	Acidi sulphurici aromatici,	f.3ss	
	Zingiberis syrupi,	f.3ij	
	Aquæ,	f.3x.	M.

A tablespoonful every two, three or four hours.



The action of these drugs may be favored by tepid drinks, warm baths and fermentations. Diuretics should be avoided. If the urine is scanty, a small quantity of nitrate of potassa or spirit of nitrous ether may be given in a demulcent fluid. Fifteen to twenty leeches may be applied to the perineum and verge of the anus. Dry or wet cups to the sacro-lumbar region will relieve the pain in the back. Anodynes by the rectum are very valuable, as:—

- |                                   |                  |        |    |
|-----------------------------------|------------------|--------|----|
| 771. R.                           | Pulveris opii,   | gr.ijj |    |
|                                   | Butyri cacaonis, | q. s.  | M. |
| Mix thoroughly for a suppository. |                  |        |    |

Or a drachm of laudanum in f.℥ij of tepid water may be thrown up with a syringe having a long nozzle after the lower bowel has been washed out.

*Chronic cystitis, or catarrh of the bladder*, demands an unirritant, farinaceous diet, without condiments, acids, or spirits, in any form. Exposure to cold must be carefully avoided. The acrid remaining urine should be drawn off, and pain and sleeplessness may be allayed by the following suppository:—

- |                       |                      |       |    |
|-----------------------|----------------------|-------|----|
| 772. R.               | Pulveris opii,       | gr.ij |    |
|                       | Pulveris camphoræ,   | gr.v  |    |
|                       | Extracti belladonnæ, | gr.ss |    |
|                       | Butyri cacaonis,     | q. s. | M. |
| Make one suppository. |                      |       |    |

A particularly serviceable recipe where there is a morbid irritability of the neck of the bladder is the following:—

- |  |                    |        |    |
|--|--------------------|--------|----|
| 773. R.  | Uvæ ursi folia,    | ℥iss   |    |
|  | Humuli folia,      | ℥ss.   |    |
| Infuse in a quart of water, in a covered vessel, for two hours, and add: |                    |        |    |
|  | Sodæ bicarbonatis, | ℥ij    |    |
|  | Morphiæ sulphatis, | gr.ij. | M. |
| Of this a wineglassful is to be taken five or six times a day.           |                    |        |    |

In ordinary cases no remedy equals the balsam of copaiba, as follows:—

- |   |                    |        |    |
|---|--------------------|--------|----|
| 774. R.   | Copaibæ,           | f.℥j   |    |
|   | Morphiæ sulphatis, | gr.ij  |    |
|   | Pulveris acaciæ,   | ℥ij    |    |
|   | Sacchari alba,     | ℥ij    |    |
|   | Olei gualtheriæ,   | gtt.x  |    |
|   | Aquæ,              | f.℥vj. | M. |
| A teaspoonful to a dessertspoonful three or four times a day. |                    |        |    |



DR. G. W. SIMPLE, OF VIRGINIA.

In the Virginia *Medical Monthly*, June, 1876, this writer records striking success in cystitis with:—

775. R. Atropiæ sulphatis, gr. j  
Acidi carbolic, gr. xij  
Aquæ destillatæ, f. ʒviij. M.

Forty to sixty drops of this in half an ounce of water as a rectal injection, twice a day.

It uniformly and immediately arrests the frequent strangury and painful micturition, gradually checks the mucous and sanguineous discharges, and relieves the supra-pubic pain with the cystic inflammation. When the urine is alkaline, Mettauer's nitro-muriatic acid mixture is given to correct it; and when it is so acid as to irritate, the acidity is corrected by antacid remedies, of which the bicarbonate of potash, with subnitrate of bismuth, is generally preferred, because of the tonic effect of the bismuth, and its very soothing effect on the mucous surfaces of the urinary organs.

PROFESSOR ROBERT DRUITT, M. D., SCOTLAND.

776. R. Decocti chimaphillæ, f. ʒj  
Syrupi zingiberis,  
Spiritus ætheris nitrici, āā f. ʒj. M.

For a dose. Twice a day in chronic cystitis.

PROF. RICORD, PARIS.

777. R. Argenti nitratis, gr. viij  
Aquæ destillatæ, f. ʒiijss. M.

By the aid of a sound introduced into the bladder, water is injected into this organ; this is allowed to pass out immediately, and replaced by the half of the above solution, which, in its turn, is evacuated after about a minute's sojourn. This injection is to be repeated on the third or fourth day, if necessary, in chronic cystitis.

778. R. Extracti belladonnæ, gr. v  
Extracti valerianæ, ʒj. M.

Divide into thirty pills. One thrice daily, in chronic cystitis, when the patient supports opium badly; also belladonna suppositories.

779. R. Opii pulveris, ʒij  
Camphoræ pulveris, gr. xv  
Saponis, ʒvss. M.

Divide into sixty pills. One thrice daily, in acute cystitis.



## LOCAL INTERNAL TREATMENT.

Injectations into the bladder are sometimes used in chronic cystitis. When all acute symptoms have subsided, tepid water, or, still better, tepid urine, may be employed, retained for thirty or forty seconds and repeated once or twice a day; or the following medicated injections may be resorted to:—

Argenti nitras, gr.i to f.ʒiv of warm water, to commence with, and going up to gr.ss or gr.j, at the outside, to the ounce. Carbolic acid, ℥j-ij to f.ʒiv of warm water, when the urine is offensive. Nitricum acidum dilutum, ℥j-ij to f.ʒj of warm water. Plumbi acetas, gr.j to f.ʒiv of warm water once a day, when the urine is alkaline and depositing phosphates. Potassæ chloras, gr.iv-v to f.ʒj of warm water, when the urine is putrid. Sodæ biboras is recommended by Sir HENRY THOMPSON in the following formula:—

780.	R.	Sodæ biboratis,	ʒj	
		Glycerinæ,	f.ʒij.	M.
Add two or three teaspoonfuls to f.ʒiv of warm water.				

In administering injections into the bladder the following rule given by Sir HENRY THOMPSON should be carefully observed:—A flexible catheter being first introduced into the bladder, “have ready a five-ounce india-rubber bottle with a brass nozzle and stop-cock, the nozzle long and tapering, so as to fit a catheter of any size between Nos. 5 and 10, filled with warm water, say at 100° F.; attach the nozzle gently to the catheter and then throw in slowly a fourth of the contents; let that run out; it will be thick and dirty, no doubt; then inject another fourth, which will be less so; again another, which will return clearer than the preceding; and the fourth portion will probably come away nearly clear. Now these four separate washings of an ounce each will have been really more efficient than two washings of four ounces each, and you will have reduced the amount of instrumental irritation to a minimum. . . . Never, under any circumstances, throw in more than two ounces at a time, and even this quantity, for efficient washing, is better avoided.” Dr. BRAXTON HICKS advises that the point of the catheter, in giving an injection, should not pass far beyond the neck of the bladder, otherwise, if it touches the sides or back, it occasions great distress.



## DR. MALLEZ, PARIS.

781. R. Sodii hyposulphitis, Div  
Aquæ destillatæ, Oj. M.

This solution to be employed in five injections into the bladder, in chronic vesical catarrh.

782. R. Potassii permanganatis, Div  
Aquæ destillatæ, f. ʒx. M.

Inject one-third of this solution into the bladder, in chronic catarrh, when the urine is purulent.

783. R. Tincturæ iodinii, Div  
Potassii iodidi, gr. xv  
Aquæ destillatæ, f. ʒx. M.

Inject one-third into the bladder, on three consecutive days, in chronic cystitis, with light mucous catarrh. If this injection causes pain, use the following:—

784. R. Tincturæ iodinii, ℥xv  
Potassii iodidi, āā  
Extracti belladonnæ, gr. xv  
Aquæ destillatæ, f. ʒx. M.

One-third to be injected as above.

785. R. Potassii iodidi, Div  
Extracti hyoscyami, Div  
Extracti conii, āā gr. v  
Butyri cocoæ, Div. M.

For one suppository. To be introduced into the rectum in engorgements and hypertrophy of the prostate.

## RÉSUMÉ OF REMEDIES.

*Ammonia Benzoas* is recommended by Dr. GARROD, where a tendency to phosphatic deposit exists.

*Benzoicum Acidum* is advised by Sir HENRY THOMPSON in chronic cystitis. It should be administered in the form of a pill (gr. iij-iv, with glycerine), and not less than gr. xxiv taken daily.

*Buchu*, in the form of infusion, given to the extent of half a pint daily, has proved of service in the hands of Sir HENRY THOMPSON.

*Colchicum* is of value in the cystitis of rheumatic and gouty subjects. It may be either given alone or in connection with pareira brava or buchu. It is indicated, according to Sir BENJAMIN BRODIE, when the urine is alkaline.

*Copaiba*, alone or combined with cubebs, is useful in relieving intense irritation, particularly in persons of a strumous diathesis or debilitated constitution. Sir HENRY THOMPSON states that the dose in these cases should not exceed ℥.v, in mucilage, three or four times a day.

*Cubeba*, given cautiously, in small doses (gr. x-xv, thrice daily), is recommended by Sir BENJAMIN BRODIE as often useful in relieving the symptoms, both in primary inflammation and in that resulting from the presence of a calculus in the bladder.

*Ferri Chloridi Tinctura* has been employed, when persevered in, with advantage, by Sir BENJAMIN BRODIE, in doses of ℥.viij-xv twice a day, in water or an infusion of buchu.



\* *Opium* is a most useful remedy. Its action is aided by the hot hip-bath, fomentations and linseed-meal poultices, sprinkled with mustard, over the hypogastric region. It may be employed in the form of a *suppository*. Mr. LISTON's favorite combination was the following:—

786. R. Pulveris opii, gr.ij-iv  
Extracti hyoscyami, gr.x-xv. M.

This should be preferably exhibited at the hour of sleep, and usually secures a state of enviable comfort for twelve or sixteen hours. Sir HENRY THOMPSON employs a suppository of morphia (gr.ss-j).

*Pareira Brava* is recommended by Sir BENJAMIN BRODIE as useful in lessening the secretion of ropy mucus, and diminishing the inflammatory action. He gives the following formula:—

787. R. Pareiræ bravæ radicis, ʒss  
Aquæ, ad. Oij.  
Simmer over the fire until reduced to Oj. Dose—f.ʒviii-xij daily.

Tincture of hyoscyamus may be added, and where there is a deposit of the phosphates, hydrochloric or nitric acid.

\* *Terebinthine Oleum*, in the form of hot epithems over the hypogastric region, is highly serviceable.

*Triticum Repens*, in decoction, is highly spoken of by Sir HENRY THOMPSON and Dr. GRAILY HEWITT.

*Uvæ Ursi Folia*, in decoction, Oss daily.

## DIABETES.

WILLIAM AITKEN, M. D., EDINBURGH.

The whole *materia medica* has been exhausted in search of a remedy for this disease. It may be said nearly every patient dies whose treatment is left entirely to drugs. A full and generous diet is unquestionably useful in these cases; but the patient soon gets disgusted with mutton or beef, or both, for breakfast, dinner and supper: he consequently nauseates a meat diet, and abandons it altogether. A diet of salt fish has been attempted, but the patient in a short time so loathes it that it has to be given up. A mixed diet, therefore, if contra-indicated by some theories, is at least the best to adopt in practice, if only regulated and aided by other means. It will be evident, however, that vegetables which contain a large amount of saccharine matter should be avoided in some degree, as potatoes, grapes, or other very ripe fruit, and *a fortiori*, sugar itself. But milk and eggs may be taken, if biliary



derangement is not induced by them, and fish is a most important article with which to vary the monotony of the dietary. Milk also may be indulged in occasionally, as it is not found that the sugar it contains is readily converted into glucose. Its influence, however, requires watching. It should be combined with half its bulk of lime-water, or be used in the form of buttermilk. If it be found desirable or necessary to employ alcoholic drinks, a selection should be made from those wines and spirits which are freest from sugar. Of these, clarets may be chemically considered the best, then Burgundy. The so-called "fruit wines" must be interdicted, and of all alcoholic beverages, *weak* brandy-and-water is the safest. The amount of brandy should always be *measured*. A teaspoonful in a tumblerful of water is generally sufficient for an ordinary dinner drink. No diabetic need expect to recover or continue well who cannot exercise self-control, and make up his mind to be temperate *in all things*. Tea and coffee without sugar may be permitted. If cocoa agrees, it may be taken, prepared *from the nibs only*. When soups are allowed, they ought to be really good, and flavored with aromatics and onions, to the exclusion of carrots, turnips and peas. They may be thickened with some bran, *finely powdered*. Pickles in small quantities may be permitted to convalescents. Lettuces agree well when eaten sparingly with oil and vinegar, or with a little salt only, if the vinegar is likely to disagree.

The great value of *bran cakes*, as a substitute for bread in cases of diabetes, has now been established by the experience of so many individuals that its use ought to be insisted upon. The bran should be *thoroughly washed*, so that it may be as free from starch as possible, and *finely powdered*, so that it may not irritate the susceptible mucous membrane of the intestines.

GEORGE W. BALFOUR, M. D., M. R. C. P., ETC.

Our author highly recommends the *milk treatment* in diabetes. This treatment does not exclude the employment of opium, of iron, or quinine, or any other remedies otherwise considered appropriate to such cases; indeed, they may be very properly conjoined: in some patients they need not be given, because not required. From two to three months is the period usually stated as sufficient to cause the complete disappearance of sugar from the urine; and then the diet may, if desired, be rendered more solid by the detracting



of some of the milk, and the addition of butcher's meat and green vegetables. It is doubtful, however, whether diabetic patients, even though apparently cured, can ever return to ordinary diet. Present experience of such cases is too limited to afford any data at all in regard to this. When the milk diet is employed in the cure of other forms of ill-health, it is often conjoined, after the first few days, with a small amount of solid food; and what such patients relish most is plain bread with salt, or a salt herring, the mawkish sweet taste of milk inclining them this way. In diabetes, the thirst present usually makes it better to give the patient his full allowance of milk, and let him divide it over the day as he pleases.

A. BOUCHARDAT, PROFESSOR OF HYGIENE TO THE FACULTY OF MEDICINE, PARIS, ETC.

Our author has proved, by the comparison of the articles of food which a diabetic may take without prejudice, that it is quite possible to keep up a sufficient degree of variety in the character of the meals. The list of articles which it permits is about as follows: All sorts of meat, roasted, stewed, and even dressed with spices, but not with flour; fresh-water fish and marine fish, in eating which the want of bread is less felt than in eating meat; oysters, muscles, crabs, lobsters, etc.; eggs in all forms known to the culinary art; rich, good cream, but no milk; of vegetables, spinach, artichokes, asparagus, green beans, the different varieties of cabbage; of the salads, water-cresses, endives, lettuce; of fruits, strawberries and peaches. Although the loss of sugar is augmented by a very free supply of liquid, and decreased by a privation of it, yet it is not advisable to forbid the patient to quench his thirst.

THOMAS KING CHAMBERS, M. D., ETC., LONDON.

788. R. Pulveris opii,

gr.j.

In pill. To be taken every night.

In some cases opium seems to diminish the secretion of water, and our author has never distinctly traced any harm to its action. Cinchona, however, which, like opium, lessens the flow of urine, has, in Dr. C's hands, produced coma and death. He therefore shuns it, even when he wishes to give tonics to increase the appetite. He prefers iron and strychnia.

789. R. Potassii iodidi,  
Aquæ,

℞v  
f. ʒvj.

M.

A tablespoonful three times a day.



This drug was prescribed on purely empirical grounds. During its administration the patient continued to gain weight and strength, and did not exhibit any of the usual symptoms of intoxication by iodine.

Patients may drink as much as they feel disposed ; for the gratification of the thirst provides the normal outlet for the abnormal constituent of the blood.

J. M. DA COSTA, M. D., PHILADELPHIA.

790. R. Pulveris opii, gr.ss.  
For one pill, thrice daily.

The *opium treatment*, Dr. DA COSTA has found to be productive of the most good in his hands. He cannot explain the rationale, but he does know that it has the most influence in lessening the thirst, the excretion of sugar and the general waste of flesh. The only objection to its use is the risk which is run of accustoming the patient to taking this powerful drug.

791. R. Ammoniae carbonatis, ℥ij-iv  
Aquaë cinnamomi, f.℥vj. M.

A tablespoonful three or four times a day. This, in addition to a moderately restricted diet, forms a very good treatment.

792. R. Tincturaë ferri chloridi, gtt.xx-lx.  
For one dose, in water, thrice daily.

This will often do good when nothing else proves of service. The *pepsin* and *rennet treatments* amount to nothing. Dr. DA COSTA has tried them faithfully, and merely lost time.

*Diet.*—Although substances containing a great deal of sugar, and still more those containing a great deal of starch—which is readily converted into sugar—are poisonous to diabetic patients, yet it is not advisable to put them on a strictly animal diet. Such a regimen is irksome in the extreme, and will not be followed out. After all, it is not the saccharine substances which go into the body that cause diabetes ; they merely add to it. It is simply impossible to avoid giving food capable of being converted into sugar.

Bran bread is perfectly unobjectionable ; but a small quantity of ordinary bread should be permitted. Cakes made from *almond-flour* are favorites with English physicians. Fruits should be interdicted, and potatoes sparingly used.

*Bran baths* (two or three handfuls of bran in the bath) are very



serviceable in relieving the dryness of the skin, which is so troublesome.

793. R. Infusi cascarillæ, Oj.  
A wineglassful three or four times a day.

The use of this light bitter lessens the thirst. Of course, water must be allowed beside; but the infusion will take the place of a good deal of water.

THOMAS HAWKES TANNER, M. D., F. L. S., LONDON, ETC.

794. R. Ferri ammoniæ citratis, ʒi  
Spiritus ammoniæ aromatici, f.ʒvj  
Potassæ bicarbonatis, ʒij  
Infusi calumbæ, q. s. ad. f.ʒiij. M.  
A tablespoonful to be taken twice a day, with one tablespoonful of lemon juice, in a little water.

This recipe often proves very valuable. It should be taken for two or three weeks at a time, then discontinued, and recommenced according to the general strength.

795. R. Pulveris opii,  
Quiniæ sulphatis, āā gr. j. M.  
For one pill, thrice daily. Useful in some cases.

796. R. Creasoti, ℥xx  
Pulveris aromatici, ʒiv  
Mucilaginis acaciæ, q. s. M.  
Divide into twenty pills. One to be taken three times a day.

It is believed that this remedy tends to check the conversion of the food into sugar.

DR. J. HOAG, INDIANA.

This writer claims, in the *Journal of Materia Medica*, September, 1874, to have achieved uniform success with the following treatment:—The patient is forbidden all fruits and vegetables save bread of unbolted wheat flour, and this in the most limited quantities. Tea, coffee, liquors, and all drinks except pure water and milk diluted with lime-water, at meals, are also forbidden. The diet should be fresh meats, cream, cheese, butter, soft eggs, fish, oysters and small quantities of bran bread. The entire body is sponged daily with an alkaline bath, and the following ordered:—



797. R. Antimonii sulphurati, ℥j  
 Pulveris ipecacuanhæ et opii, ℥ij  
 Ammonia carbonatis, ʒj  
 Pulveris opii, gr.x. M.

Make twenty powders. One to be taken morning and night.

Also,

798. R. Tincturæ cinchonæ, f.ʒij  
 Tincturæ ferri chloridi, f.ʒiv  
 Tincturæ digitalis, f.ʒj  
 Spiritus lavandulæ compositi, f.ʒj. M.

A teaspoonful daily, at noon.

#### DR. ORSON MILLARD, MICHIGAN.

799. R. Tincturæ ferri chloridi, f.ʒij  
 Olei morrhuæ, f.ʒiv  
 Acidi carbolici, f.ʒiss. M.

A teaspoonful before each meal. Said by this writer (Michigan University Medical Journal, January, 1872) to bring about the disappearance of the sugar promptly in uncomplicated cases.

#### RÉSUMÉ OF REMEDIES.

*Ammonia Carbonas* is regarded by Dr. BARLOW (Guy's Hospital Reports, vol. x), in doses of gr.v–viij, with a few drops of tincture of opium, in a light bitter infusion, every six hours, as a most efficient remedy. Animal food, together with cruciferous vegetables, as greens, broccoli, turnip tops, etc., should, at the same time, be freely taken.

*Ammonia Citras*, conjoined with the use of Dover's powder or ipecacuanha, is considered by Dr. W. PROUT as one of the best of diaphoretics in diabetes.

*Ammonia Phosphas* is recommended by Dr. BASHAM (British Medical Journal, April 10th, 1869), combined as follows :—

800. R. Ammonia phosphatis,  
 Ammonia carbonatis, āā gr.x  
 Spiritus ammonia aromatici, ℥xxx  
 Aquæ, f.ʒj. M.

Add this to the juice of a fresh lemon, and order to be taken thrice daily. Its use must be persevered in.

*Codeia* is preferred by Dr. F. W. PAVY (Guy's Hospital Reports, 1870) to opium and morphia, as being equally effectual in controlling the disease without exerting the same narcotic effect. The proper commencing dose is gr.ss thrice daily, which may be gradually increased to gr.ij–iij.

*Creasote* has been recommended by Sir T. WATSON and Dr. T. H. TANNER.

*Ferrum*, in various forms, as a tonic.

\**Ipecacuanhæ Pulvis Compositus* is a useful remedy, highly recommended by Dr. W. PROUT, in combination with full doses of reduced iron.

\**Opium* has been found by Prof. DA COSTA a most efficient remedy in his



hands, and is regarded by Prof. F. W. PAVY as superior to all other medical agents in its controlling influence over the disease, none other giving the same immediate and striking effects. It should be given in full doses and persevered in, diabetic patients being very tolerant of its use. It produces its best effects in old cases occurring in the aged.

*Phosphoric Acid*, largely diluted, lessens the inordinate thirst more effectually than any other acidulated drink.

*Rheum* is praised by Dr. COPLAND, not only as a useful aperient in diabetes, but as a promoter of the digestive and assimilative processes.

*Soda Phosphas* is regarded by Dr. W. PROUT as one of the few saline purgatives admissible in this disease.

## DROPSY.

FREDERICK T. ROBERTS, M. D., M. R. C. P., LONDON.

This esteemed authority remarks that far too little heed is usually given to the question of *rest* and *position* in the treatment of dropsy. The part affected should be maintained in an elevated posture; the legs, for instance, if anasarcaous, placed higher than the body. *Pressure* should be applied by bandages or adhesive strips, and is a very valuable adjunct. All external dropsical parts should be kept clean and dry. A decided diminution of drinks and liquid articles of food is adapted to dropsical accumulations in serous cavities. The only *diaphoretic* he considers of much practical value is some form of bath which promotes perspiration, such as the warm, vapor, hot-air, or Turkish bath. They are most valuable in renal dropsy. The best *purgatives* are extract of elaterium (gr.  $\frac{1}{6}$ , gradually increased to gr. ss), jalap (ʒj to ʒj), and cream of tartar (ʒj to ʒij). For a diuretic, the following:—

801. R.	Extracti elaterii,	gr.v	
	Pulveris scillæ,	gr.xx	
	Pulveris digitalis,	gr.xx	
	Extracti hyoseyami,	gr.xxx.	M.

To make twenty pills. One to be given every other night.

C. MURCHISON, M. D., F. R. S., ETC., LONDON.

802. R.	Pulveris scillæ,	gr.iss	
	Pulveris digitalis,	gr.ss	
	Pilulæ hydrargyri,	gr.ij.	M.

For one pill, two or three times a day.

This is a pill which has enjoyed a long and merited reputation for treatment of dropsy in the Middlesex Hospital.



Diuresis will also sometimes be induced by fomenting the abdomen with an infusion of digitalis of about four times the usual strength.

803. R. Potassæ acetatis, gr. xx  
 Spiritûs ætheris nitrosi, f. ʒss  
 Decocti scoparii, f. ʒiiss. M.

To be given with each dose of the above pills.

At the same time, an ointment composed of equal parts of blue ointment and ointment of belladonna is to be applied over the abdomen. This treatment is a successful one in cases of ascites due to cirrhosis.

ROBERT J. GRAVES, M. D., DUBLIN.

804. R. Potassii nitratis, āā ʒj  
 Potassii carbonatis, āā  
 Tincturæ scillæ, gr. xxx  
 Tincturæ digitalis, f. ʒij. M.  
 Mellis despumati,

For an electuary. To be taken in teaspoonful doses, in the course of three or four days, in order to increase the activity of the kidneys, in various forms of dropsy.

805. R. Oxymellis scillæ, f. ʒiiss  
 Potassii bitartratis, ʒiij. M.

Dose—A teaspoonful, as a diuretic, in various forms of dropsy.

DR. GUIBERT, PARIS.

806. R. Tincturæ scillæ, āā f. ʒiij  
 Tincturæ digitalis, f. ʒvj  
 Tincturæ colchici, f. ʒiiss. M.  
 Linimenti camphoræ,  
 Aquæ ammoniæ,

To be rubbed well into the abdomen and thighs in dropsy.

DR. PORCHER, PARIS.

807. R. Sodii sulphatis, āā ʒj  
 Potassii bitartratis, f. ʒijss  
 Spiritûs ætheris nitrosi, f. ʒj  
 Syrupi, f. ʒvss. M.  
 Aquæ,

A tablespoonful twice daily, in dropsy accompanied with an active, full circulation. It procures an abundant alvine evacuation, and often, at the same time, a copious secretion of urine.

808. R. Tincturæ cantharidis, f. ʒiiss  
 Spiritûs ætheris nitrosi, f. ʒvj  
 Syrupi aurantii corticis, f. ʒj  
 Aquæ fœniculi, f. ʒviiij. M.

A tablespoonful two or three times a day, in different forms of dropsy.







Their operation is greatly aided by previous depletion, if the patient be not much debilitated. Dr. J. HOPE finds diuretics of the highest service in *dropsy connected with disease of the heart*, especially when accompanied by a scanty secretion of high-colored urine. He recommends particularly in these cases, digitalis, squills and acid tartrate of potash. The dyspnœa, palpitation and cough decrease as the quantity of the urine increases. In *inflammatory dropsy attendant on granular disease of the kidneys*, the use of diuretics, particularly those of a stimulating character, is generally condemned. The administration of diuretics by the *endermic method* is sometimes effectual in removing dropsies. The diuretics usually employed in the treatment of dropsies are digitalis and digitalin, sweet spirits of nitre, juniper, acetate of potash, nitrate of potash, cream of tartar, squills, broom tops. The following formulæ have been recommended:—

- |   |                          |    |                   |    |
|---|--------------------------|----|-------------------|----|
| 815. R.   | Digitalin,               |    | gr. $\frac{3}{4}$ |    |
|   | Pulveris scillæ,         |    |                   |    |
|   | Pulveris scammon.,       | āā | gr. lxxv          |    |
|   | Mucilaginis,             |    | q. s.             | M. |
| Make one hundred pills. Of these two, then four, and lastly, six are to be given daily, according to the effect produced. |                          |    |                   |    |
|   |                          |    |                   |    |
| 816. R.   | Potassæ nitratis,        |    | ʒiij              |    |
|   | Baccar. juniper.,        |    | ʒxv               |    |
|   | Vini albi,               |    | Oiss              | M. |
| Dose—f.ʒiiss daily.   |                          |    |                   |    |
|   |                          |    |                   |    |
| 817. R.   | Potassæ bitartratis,     |    | ʒss               |    |
|   | Juniper baccar. contus., | āā | Oj                | M. |
|   | Aquæ ferv.,              |    |                   |    |

This infusion is considered by Prof. STILLÉ to have few superiors in the idiopathic forms of general dropsy.

- |   |                   |  |           |    |
|---|-------------------|--|-----------|----|
| 818. R.   | Scoparii (seeds), |  | ʒij       |    |
|   | Alcoholis,        |  | f.ʒviiij. | M. |
| Macerate for ten days. Dose—f.ʒj-ij thrice daily. |                   |  |           |    |

If it cause diarrhœa, five or six drops of laudanum may be added; if the patient is much debilitated, iron or quinine may be added. This formula is of service in all forms of dropsy excepting ovarian.

*Cathartics*, particularly elaterium, gamboge and cream of tartar, are of great service in dropsical affections, but they are to be used with great caution when the patient is nearly debilitated, and, as a rule, to be avoided in dropsy connected with heart disease. Dr.



CHRISTISON recommends gamboge in doses of gr.v-vij, every other day, finely powdered and combined with cream of tartar as a certain and easily managed cathartic in reducing dropsy. *Colocynth* may be employed in dropsical affections connected with disease of the liver, but is inferior to elaterium. *Croton oil* is sometimes useful when given with great caution in small and only gradually increased doses, but is inadmissible if the patient is old or debilitated. *Elaterium* is a very efficient cathartic in dropsy, anasarca and œdema arising in connection with disease of the heart. Dr. J. HOPE gives it in the form of a pill, in the dose of gr. $\frac{1}{8}$ - $\frac{1}{4}$ , combined with capsicum, to prevent griping, and with a grain of calomel, to prevent its emetic effects. One of these pills should produce six or eight watery evacuations, and may be repeated two or three mornings in succession, or every second or third morning, according to the patient's strength. The dose of elaterium may be carried, with caution, to two grains. The effects of this remedy, according to Dr. HOPE, are sometimes truly astonishing, removing an extreme universal anasarca in three or four days, but as it is apt to be violent in its operation, it should be given to strong subjects only. The following formulæ are also valuable:—

819. R.	Elaterii, Extracti gentiani,	gr.ij gr.xx.	M.
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Divide into four pills; order one every hour till it causes free evacuations. Repeat every two or three days for a fortnight, and then suspend for a short time.

820. R.	Elaterii, Extracti colocynthidis compositi, Extracti hyoscyami,	gr.j gr.xl gr.xij.	M.
---------	---	--------------------------	----

Divide into twelve pills. Take one every night.

821. R.	Pulveris jalapæ compositi, Potassæ bitartratis, Olei carui, Aquæ,	gr.xx-xxx gr.v-x-xv gtt.ij f.℥iss.	M.
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For one dose, to be repeated, so as to keep up an unremitting discharge from the bowels. This formula is recommended by Dr. CHAPMAN.

### RÉSUMÉ OF REMEDIES.

*Ammoniæ Murias* and *Benzoas* are useful in dropsy dependent upon hepatic disease, and also in ovarian dropsy. Dr. COPLAND recommends these combinations with warm diuretic effusions.

*Armoraciæ Radix*. Horse-radish was much employed as a diuretic by SYDENHAM and the older physicians, in dropsical affections.



*Cannabis Indica* has been used (℥xx of the tincture every four hours) as a diuretic in dropsy.

\**Digitalis* is much employed in dropsical affections, alone or combined with squills, mercury, carbonate of ammonia or tincture of the chloride of iron. Sir H. HOLLAND recommends a combination of digitalis and tincture of the chloride of iron in the dropsy following scarlet fever. The same combination is useful in many other forms of dropsy attended with anæmia. Diuresis is sometimes induced by the external application of digitalis to the abdomen, either by fomentation with an effusion of about four times the usual strength, or by frictions with an embrocation of equal parts of tincture of digitalis and soap liniment, or by poulticing with a warm linseed poultice, to which a fluid ounce of the tincture has been added.

*Ferri et Potassii Tartras* has been found useful as a tonic and diuretic in cases of anasarca connected with disturbed action of the heart, in which it would be dangerous to give any stimulating tonic.

*Phosphoricum Acidum Dilutum*, diluted with oil and acid as an embrocation over the abdomen, has been employed with benefit in some cases of dropsy.

*Rheum*, in small doses, or in infusion as a vehicle for the saline diuretics, squills, juniper or colchicum, is regarded by Dr. COPLAND as a useful medicine in dropsies.

*Sinapis* is sometimes beneficial, because of its diuretic and stimulant qualities. It is best given in the form of whey, made as follows :—

822. R. Bruised mustard seeds, 3ss. M

Boil in Oj of milk and strain. The whole to be taken daily in divided doses.

*Terebinthine Oleum*, in doses sufficient to act freely on the bowels and kidneys, is occasionally useful in ascites, unconnected with renal disease or with great gastric irritability or inflammatory action.

*Acupuncture* is sometimes a useful palliative in anasarca, the needles not being introduced more deeply than to pierce the cutis.

*Calci Chloridum* has been found serviceable in ovarian dropsy.

*Ferri Iodidum* is favorably reported upon by Dr. COPLAND, who conjoins with its internal use the external application of iodine to the inner sides of the thighs, or over the abdomen.

*Iodine*, employed in the form of injections into the ovarian cysts in cases of ovarian dropsy, is a form of treatment in regard to the safety and propriety of which there is much discussion in the profession. The experience of Dr. WEST and Sir J. T. SIMPSON is in favor of the operation, but Dr. TYLER SMITH reports adversely.



## HÆMATURIA.

DR. CHARLES HORION, PARIS.

823. R. Ergotæ pulveris, gr.xv  
 Acidi tannici, gr.iiij  
 Digitalini, gr.½ M.

Divide into ten pills. Give five a day, in hæmaturia. Prolonged cold injections into the bladder, cold compresses to the perineum and pubis.

DR. W. LANGE, ERLANGEN.

824. R. Extracti ergotæ fluidi, ℥xxv  
 Acidi tannici, gr.xxx  
 Aquæ destillatæ, f.℥vj  
 Syrupi, f.℥j. M.

The whole to be given in tablespoonful-doses, in the course of the twenty-four hours, in hæmaturia. Cold compresses to the hypogastrium, ice by the mouth, cold enemata.

PROF. S. D. GROSS, M. D., D. C. L., PHILADELPHIA.

825. R. Olei terebinthinæ, aa f.℥j  
 Acidi sulphurici diluti, f.℥j  
 Acidi gallici, gr.xxx  
 Mucilaginis acaciæ, f.℥ss  
 Aquæ, f.℥j. M.

A dessertspoonful every three hours.

In all cases ice to the hypogastrium and in the rectum or vagina is serviceable; rest in the recumbent posture, the pelvis elevated, and the room cool, are important accessories.

## RÉSUMÉ OF REMEDIES.

*Alumen* injected into the bladder. in a solution of the strength of gr.xx to aquæ Oj, sometimes arrests the discharge in hæmaturia after the failure of ordinary remedies. As an internal remedy in hæmaturia, alum is less effectual than gallic acid.

*Argenti Nitras*, in very weak solution, injected into the bladder in hæmaturia arising in connection with vesical tumor, is recommended by Sir H. THOMPSON.

*Ferri Chloridi Tinctura*, in doses of ℥x-xx, several times a day, is a valuable remedy in hemorrhage from the bladder.

\* *Gallicum Acidum*, alone or combined with sulphuric acid, opium or digitalis, is an excellent astringent in hæmaturia. Dr. W. BRINTON recommends the following formula:—

826. R. Acidi gallici, gr.x  
 Acidi sulphurici diluti, ℥x  
 Aquæ, f.℥j. M.

For one dose.



\* *Ipecacuanha* is a valuable remedy in hæmaturia. It should be given in the manner recommended for hæmoptysis.

*Krameria*, in scruple doses of the extract, is highly commended by Sir T. WATSON, after all ordinary remedies have failed.

\* *Matico*, in infusion, doses f.ʒij every two or three hours, is regarded by Sir H. THOMPSON as equal to gallic acid or lead in hæmaturia.

\* *Plumbi Acetas*, in doses of gr. ij-iv, combined with gr.ss-j of opium, is a well-known and effectual remedy.

*Tannicum Acidum*, in the form of a pill, is an effectual astringent in hemorrhage from the bladder.

*Terebinthinæ Oleum* is employed with benefit where there is debility, relaxation and anæmia. Prof. BARTHOLOW commends the following formula:—

827. R.	Olei terebinthinæ,	f.ʒiij	
	Extracti digitalis fluidi,	f.ʒj	
	Mucilaginis acaciæ,	f.ʒss	
	Aquæ menthæ piperitæ,	f.ʒj.	M.

A teaspoonful every three hours."

## INCONTINENCE OF URINE.

DR. BRÜGELMANN, COLOGNE.

Our author relates (*Berliner Klinische Wochenschrift*, February 10th, 1873) a case of well-marked incontinence of urine in a girl aged thirteen, very nervous, and distinctly anæmic, where the administration of syrup of iodide of iron afforded marked relief in eight days. After persevering with it for another fortnight, she was completely cured.

PROFESSOR S. D. GROSS, OF PHILADELPHIA.

In the nocturnal incontinence of children, there should be a bland and unirritant diet, late suppers should be avoided, no drink taken after supper, and the bladder emptied on retiring. The position in bed should be upon the side or belly, to prevent the urine from irritating the neck of the bladder. The internal remedies of most use are as follows:—

828. R.	Strychniæ,	gr. j	
	Pulveris cantharidis,	gr. ij	
	Morphiæ sulphatis,	gr. iss	
	Ferri pulvis,	ʒj.	M.

Make forty pills. Give one three times a day to a child ten years old.

The cold shower-bath once or twice a day is a valuable auxiliary.



## NEPHRITIS.

ALFRED L. LOOMIS, M. D., OF NEW YORK.

Incipient nephritis, or active renal congestion, can, in most cases, be speedily relieved by the following treatment:—First, place the patient in bed, in a room with a temperature above 75° Fah., then apply a dozen dry or wet cups over the lumbar region. Let the patient drink freely of diluent drinks, and administer one or two drastic purgatives. Induce moderate diaphoresis, and avoid carefully all stimulants.

In passive renal congestion, which is generally associated with some cardiac disease, digitalis is the most serviceable remedial agent.

## RÉSUMÉ OF REMEDIES.

*Belladonna* is recommended by Dr. J. HARLEY in acute nephritis.

*Colchicum*, conjoined with magnesia, is useful in the nephritis of gouty subjects.

*Opium* is a remedy of great value, when assisted by diluents, the hip-bath, and large flaxseed poultices over the lumbar region.

\**Baths*. The hot bath, or the hot hip-bath, is a useful soothing remedy.

*Enemata* of three or four quarts of water, at blood heat, will, it is said, sometimes cut short an attack of nephritis. The first injection usually brings away with it much fecal matter; the second, to be given immediately after the return of the first, is usually retained without difficulty.

\**Poultices*. Large light flaxseed poultices not only afford present relief, but arrest the progress of the disease.

## SABULOUS DEPOSITS (GRAVEL).

SIR HENRY THOMPSON, F. R. C. S., ETC., LONDON.

This distinguished surgeon delivered some lectures in 1873 on the preventive treatment of calculous disease, and as nineteen out of twenty stones are urates, his especial question was, "How to prevent uric-acid calculus?" He condemns reliance on diuretics and strongly alkaline waters, such as Vichy. At the bottom of the tendency to uric acid production there often lies inactivity of the liver. For this, nothing is so valuable as the *saline* mineral waters, as Püllna, Friederichshalle, Marienbad, Carlsbad or Fran-



zensbad (in the order of their strength). These waters should be given, from three to ten ounces, with half the quantity of hot water, before breakfast. In regard to *diet*, the patient should eschew alcohol, saccharine and fatty articles. Butter, cream and pastry are included in the last mentioned. Fresh, green vegetables may be taken freely, but not sweet fruits, as grapes, pears and plums.

All medicinal agents, secret or professional, are solutions of lime, soda or potash, alone or combined. Of all these, the citrate and the bicarbonate of potash are preferred by our author. The former may be taken in doses of gr.xl to gr.l, every three or four hours, in aquæ f.3iv. The following conditions are essential to success; certainty that the stone is uric acid and of small size; that the urine is acid, and never ammoniacal.

829. R. Potassæ bicarbonatis, 3xij  
Acidi citrici, gr.viiij-xxiv  
Aquæ, ad. f.3xij. M.

One or two tablespoonfuls in a glass of water, thrice daily. Each ounce contains 3j of citrate of potassa.

DR. VENABLES, LONDON.

830. R. Sodii boratis, gr.vij  
Sodii bicarbonatis, gr.ix  
Syrupi aurantii corticis, f.3iss. M.

To be taken during the day, in soda-water, for the red deposit seen in the urine of persons predisposed to gravel. The borax and the bicarbonate of sodium may be replaced by from four to six grains of carbonate of lithium.

S. W. BUTLER, M. D., PHILADELPHIA.

831. R. Fresh root of hydrangea arborescens, 2 pounds  
Water, 6 quarts.

Boil down to two quarts; strain, and add one quart of honey, and boil down to one quart. A teaspoonful twice or three times a day.

Dr. BUTLER highly recommends this remedy in cases of sabulous and gravelly deposits in the bladder. Under its use large quantities of sand and gravel have been removed.

A fluid extract of the hydrangea arborescens is prepared by the leading pharmacutists, and may be readily obtained.

C. W. FRISBIE, M. D., NEW YORK.

832. R. Sodæ biboratis, 3ij  
Extracti uvæ ursi fluidi, f.3j  
Spiritus ætheris nitrosi, f.3ss  
Tincturæ opii deodoratæ, aa f.3ij. M.  
Aquæ, f.3ij.

A teaspoonful from three to six times daily, in uric acid diathesis or brickdust deposit.



The celebrated *Harlem oil*, used in Holland as a remedy against stone, is:—

833. R.	Olei cadini,	.f.ʒiv	
	Olei terebinthinæ,	f.ʒiij	
	Sulphuris loti,	ʒj.	M.

Make one hundred and twenty capsules. One three times a day.

### RÉSUMÉ OF REMEDIES.

\* *Chloroform* given by the mouth or by inhalation relieves pain without interfering with that muscular contraction which probably assists in the onward propulsion of the stone. The same remark applies to *ether*.

\* *Opium*, in full doses, given by the mouth, or in the form of enema or suppository, is a remedy of great value. But *morphia*, hypodermically, is usually more effectual than any of these modes of administering opium.

*Triticum Repens*, in decoction (ʒij to aquæ Oj, boiled for fifteen minutes and strained), is said to have afforded great relief in renal calculus.

\* *Baths*. The hot bath or hip bath is a useful, soothing remedy.

*Ice*. Dr. W. Prout states that in protracted suffering in the passage of renal calculi he has occasionally obtained relief from the application of pounded ice to the region of the kidney. It is chiefly applicable when the calculus is of oxalate of lime, or the phosphate, but is not to be employed in plethoric, gouty patients suffering from lithic acid calculi.



## VI. DISEASES OF THE BLOOD.

*Anæmia—Cerebro-spinal Meningitis—Erysipelas—Gout—Malarial Diseases—Milk Sickness—Purpura Hemorrhagica—Rheumatism—Scrofula—Typhoid Fever—Variola.*

### ANÆMIA.

PROF. JOHN B. BIDDLE, M. D., PHILADELPHIA.

834. R. Quinæ sulphatis, gr.ij  
 Ferri sulphatis, gr.j  
 Strychniæ, gr.  $\frac{1}{50}$ . M.  
 For one pill, thrice daily.

An excellent tonic combination, frequently prescribed by our author.

THOMAS K. CHAMBERS, M. D., LONDON.

#### TONIC BATH.

835. R. Acidi muriatici, f. 3j-ij  
 Aquæ calidæ, C. xxx.  
 In a wooden bath, the patient to remain in it for from ten to twenty minutes.

Dr. CHAMBERS has found this bath to confer muscular strength, even when employed alone. When used in cases of anæmia, while iron is being given internally, it gives an impetus to the improvement of the patient; more iron is taken up, and the blackening of the fæces ceases.

J. M. DA COSTA, M. D., PHILADELPHIA.

#### TONIC INHALATION.

836. R. Ferri lactatis, gr. j-ij  
 Aquæ destillatæ, f. 5j.  
 For one inhalation. To be administered (by means of any form of steam atomizer throwing a fine spray) two or three times a day. Useful in anæmia, when iron given by the stomach is not assimilated. Also in cases of gastric ulcer, when the constitutional effect of this agent is called for, while it is desirable to spare the stomach.



837. R. Ferri pyrophosphatis, 3j  
 Aquæ bullientis, f. 3ss.  
 Mix and add,  
 Extracti gentianæ fluidi, f. 3ss  
 Curaçoe, f. 3iiss  
 Vini, q. s. ad. fiat f. 3iv. M.  
 Teaspoonful thrice daily.

This preparation, known as *elixir gentianæ ferratæ*, is much used and highly esteemed in this city.

PROF. EASTON, UNIVERSITY OF GLASGOW.

The following formula of our author has become very popular in England since its first publication in AITKEN'S "Practice of Medicine," as a general tonic in anæmia and cachexia. It is known as the *Syrupus Ferri, Quiniæ et Strychniæ Phosphatum* :—

838. R. Ferri sulphatis, 3v  
 Sodæ sulphatis, 3vj-3j  
 Quiniæ sulphatis, gr. ccxij  
 Acidi sulphurici diluti, q. s.  
 Aquæ ammoniæ, q. s.  
 Strychniæ, gr. vj  
 Sacchari albi, 3xiv  
 Acidi phosphorici diluti, f. 3xiv.

Dissolve the sulphate of iron in one ounce of boiling water, and the phosphate of soda in two ounces of boiling water. Mix the solution and wash the precipitated phosphate of iron till the washings are tasteless. With sufficient dilute sulphuric acid dissolve the sulphate of quinia in two ounces of water. Precipitate the quinia with ammonia water and carefully wash it. Dissolve the phosphate of iron and quinia thus obtained, as also the strychnia, in the diluted phosphoric acid; then add the sugar and dissolve the whole, and mix without heat.

The above syrup contains about one grain phosphate of iron, one grain phosphate of quinia, and one thirty-second of a grain of phosphate of strychnia in each drachm. *The dose* might, therefore, be a teaspoonful three times a day.

The amount of phosphate of quinia might be increased according to circumstances; and if eight grains of strychnia were employed in place of six, as in the above, the phosphate of strychnia would be in the proportion of one twenty-fourth of a grain in every fluid drachm of the syrup. A much larger dose should scarcely be ventured upon.

PROFESSOR S. D. GROSS, M. D., PHILADELPHIA.

839. R. Tincturæ ferri chloridi, f. 3j  
 Quiniæ sulphatis, gr. xx. M.  
 Twenty drops thrice daily, in sweetened water, through a tube.



He prefers the tincture of the chloride to all the other preparations of iron.

Prof. CHAS. D. MEIGS considered *reduced iron* (*ferrum redactum*) to be the most efficient of the chalybeates, in two-grain doses three times a day, after each meal, on a full stomach.

DR. JOHN FORSYTH MEIGS, M. D., PHILADELPHIA.

- |         |                               |     |          |
|---------|-------------------------------|-----|----------|
| 840. R. | Ferri et quiniæ citratis,     | ʒiv |          |
|         | Extracti gentianæ fluidi,     |     |          |
|         | Spiritus lavandulæ compositi, | aa  | f.ʒiij   |
|         | Alcoholis,                    |     | f.ʒvj    |
|         | Aquæ,                         |     | f.ʒivss. |
|         |                               |     | M.       |

A tablespoonful thrice daily.

PROFESSOR ELLERSLIE WALLACE, M. D., PHILADELPHIA.

- |         |                       |          |    |
|---------|-----------------------|----------|----|
| 841. R. | Ferri pyrophosphatis, | ʒij      |    |
|         | Curaçœæ,              | f.ʒss    |    |
|         | Aquæ,                 | f.ʒijss. | M. |

A teaspoonful four times a day.

### RÉSUMÉ OF REMEDIES.

*Ferrum.* Chalybeates, given until the blood contains its normal amount of iron, are productive of the best effect in anæmia. If given too long, however, they produce plethora, indigestion and general derangement.

*Ferri Mistura Aromatica.* The following formula is an excellent one:—

- |         |                                 |      |
|---------|---------------------------------|------|
| 842. R. | Pale cinchona bark, powdered,   | ʒj   |
|         | Calumba root, in coarse powder, | ʒss  |
|         | Cloves, bruised,                | ʒi   |
|         | Fine iron wire,                 | ʒss. |

Macerate in peppermint water, f.ʒxij, for three days, agitating occasionally. Filter, add peppermint water, q. s. ad. f.ʒxijss; then add compound tincture of cardamoms, f.ʒiij; and tincture of orange peel, f.ʒss, and preserve in a well-stoppered bottle. Dose—f.ʒi-ij.

*Ferri Peroxidum Hydratum.* Dr. S. ASHWELL recommends the following formula, as one which will often agree when other ferruginous compounds cause irritation:—

- |         |                               |          |    |
|---------|-------------------------------|----------|----|
| 843. R. | Ferri peroxidi hydrati,       | gr.viiij |    |
|         | Pulveris ipecacuanhæ radicis, | gr.j     |    |
|         | Hydrargyri cum cretâ,         | gr.ij.   | M. |

Make powder. Take one twice a day.

*Ferri Sulphas* is a very effective salt of iron in anæmia. It may be combined with gentian; with quinine and strychnia; with a sedative, as conium; with an aperient, as rhubarb or aloes; with hops, as advised by Dr. S. ASHWELL.



844. R. Ferri sulphatis, gr.ij-ij. M.  
 Extracti humuli, gr.ij-iiij.  
 Make pill. Three to be taken daily.

*Magnesii Oxidum Nigrum* has been employed with success in simple anæmia, instead of iron.

\* *Oleum Morrhuæ* is a valuable remedy in all forms of anæmia, its efficacy being increased by combination with a ferruginous salt.

*Oxygen* inhalations have been found of benefit in anæmic conditions.

## CEREBRO-SPINAL MENINGITIS.

J. LEWIS SMITH, M. D., NEW YORK.

This author, in speaking of this disease, especially as it appears in children, disapproves of blood-letting, even by leeches. The one drug he relies upon is *bromide of potassium*, in doses of gr.v-vj every two, three, or four hours, to a child of five years, according to the urgency of the case. After the first week it should be given less frequently, and finally omitted. Small doses of hydrate of chloral are best to relieve the pain. Quinia is of no service. Bismuth, in large doses, controls most effectively the nausea. Frequent counter-irritation along the spine by dry cups or an irritating liniment is useful from the first, and also vesication of the nucha later in the disease. Sustaining measures should be commenced early.

DR. J. B. HAMILTON, NEW YORK.

In the *New York Medical Journal*, February, 1875, this writer gives his treatment as follows: For the first twenty-four or forty-eight hours:—

845. R. Extracti ergotæ fluidi, 3j.  
 Spiritûs ammoniæ aromatici, 3ij. M.  
 A teaspoonful in a little water every four hours.
846. R. Potassæ acetatis, 3xij.  
 Aquæ camphoræ, f.3vj. M.  
 A tablespoonful every two hours, until diuresis is produced.

In addition to these remedies, direct a warm bath, followed by wrapping in flannel, or rubbing with dry mustard, every three, four,



or six hours, according to the urgency of the case. Stimulants may be necessary from the outset.

As soon as the symptoms show any amelioration, the ergot mixture may be diminished in frequency, and at the third or fourth day discontinued. Quinine in large doses will then be found of advantage, and a more stimulant diuretic, as spiritus ætheris nitrosi, may be substituted for the potassa acetate; and for the sequelæ nothing has proved more serviceable than iodide of potassium, as occasion demanded. This writer considers the bromide of potassium treatment "utterly worthless."

DR. WILLIAM READ, BOSTON, MASS.

One of the most rational and also successful methods of treatment of this disease is described by Dr. READ (*Medical and Surgical Reporter*, vol. xxx, page 469). He usually commences with a full dose of castor oil, or other mild laxative, and then prescribes:—

847. R.	Ergotinæ (Bonjean's),	gr.x	
	Extracti belladonnæ,	gr.j-ij.	M.
Make ten pills. One every three hours.			

Croton oil is applied to the nuchæ until a copious eruption is produced, and if the spine is tender it is blistered. Concentrated nourishment is ordered.

PROF. VON ZIEMSEN, GERMANY.

The treatment of this accomplished physician comprises leeches behind the ears, and ice-bags to the head, neck and back; the inunction of fifteen to thirty grains of mercurial ointment twice daily; frequent rinsing the mouth with chlorate of potash solution, to prevent stomatitis; and especially morphine, in full doses, gr.  $\frac{1}{3}$ —ss, hypodermically in adults. Quinine is useful only in those rare cases where the temperature ranges very high. It is then required in doses of gr.xv—xxx. In a later period of the disease, iodide of potassium is of great service in producing absorption of the exudation.



## ERYSIPELAS.

DR. WILHELM ZUELZER, CHARITÉ HOSPITAL, BERLIN.

This observer believes no specific treatment for erysipelas has been established. For the rational treatment for the more serious forms the mineral acids may be used, and quinine in full doses:—

848. R.	Quiniæ sulphatis,	ʒi	
	Acidi sulphurici diluti,	f.ʒij	
	Aquæ,	f.ʒiij.	M.

A dessertspoonful three times a day.

Cold baths, several times a day, are a valuable means to reduce the temperature, especially in protracted cases. Violent cerebral symptoms must be met by cold applications to the head, and by active purgatives. When œdema of the glottis is threatened, the inhalation of solutions of tannin and alum is called for, and the energetic use of cold, by the administration of small pieces of ice and by ice-bags to the throat. Local treatment may be limited to sprinkling with powdered starch and covering with wadding. To exert a mild compression, the skin may be painted daily with:—

849. R.	Collodion,	f.ʒi	
	Glycerinæ,	f.ʒij.	M.

Great tension of the skin may be relieved by warm poultices or by superficial punctures. In violent inflammation, ice-bags and ice-water compresses are indicated.

MR. JOHN HIGGINBOTTOM, LONDON.

This surgeon maintains (*Practitioner*, January, 1869), after forty years' experience, that no agent is so safe, powerful and efficacious as the nitrate of silver. The affected part should be well washed with soap and water, then with water alone, to remove every particle of soap, which would decompose the nitrate, and then be wiped dry with a soft towel. He employs the following solution:—

850. R.	Argenti nitratis,	ʒiv	
	Aquæ,	f.ʒss.	M.

This should be applied two or three times carefully over the affected surface and beyond, on the healthy skin, to the extent of two or three inches, by means of a piece of clean linen attached



to the end of a short stick. In the course of twelve hours it will be seen whether the solution has been well applied; if any part of the inflamed surface be found unaffected, the application must be repeated. By applying the nitrate so as to encircle the inflamed part, the extension of the disease may be sometimes arrested. Iodine (see below) is preferred by some physicians.

DR. RUSSELL REYNOLDS, LONDON.

Several preparations of *iron* have been supposed, by various surgeons, to exert a specific effect on erysipelas. VELPEAU used the sulphate; but the most popular has been the chloride of iron. Dr. RUSSELL REYNOLDS advises the following formula:—

851. R.	Tincturæ ferri chloridi,			
	Spiritus chloroformi,			
	Glycerinæ,	āā	f. 3j	
	Aquæ,		f. 3iij.	M.

One tablespoonful in a wineglassful of water every four hours.

So soon as the first effects of this medicine, which are often seen after the second dose (*i. e.*, the local inflammation ceasing to extend, the inflamed part becoming paler, less tender, less swollen, the feeling of exhaustion diminishing, and with it the exaggerated frequency of the pulse and the exalted temperature, and frequently sleep ensuing), the quantity of the tincture may be reduced. Alcoholic stimulants are frequently indicated in connection with this treatment. Cool lotions should be avoided, the only local applications called for being hair-powder and cotton or wadding, to protect the parts from cold currents of air.

The Germans use *Bestuscheff's mixture*, the ethereal tincture of chloride of iron, the latest improved form of which is:—

852. R.	Tincturæ ferri sesquichloridi,	1 part
	Spiritus ætheris nitrosi,	14 parts.

Mix and expose to the rays of the sun in well-closed bottles, till the brownish color disappears. One to two teaspoonfuls every three hours.

It is well, in this connection, to note that Dr. CHARLES BELL, of Edinburgh, who strenuously advocates the treatment of erysipelas by tincture of *muriate* of iron, holds that a natural difference exists between the effects of the two so-called similar preparations of iron—viz., the *muriate* and the *perchloride*. He insists par-



ticularly on the administration of the former preparation in full and frequent doses.

PROFESSOR ROBERTS BARTHOLOW, CINCINNATI.

This writer attributes to *belladonna* "a real curative power in erysipelas," especially in idiopathic and facial erysipelas. It may be combined with aconite or digitalis, if the fever is high; with quinia, if there is depression.

853. R. Quinæ sulphatis, ℥ss  
 Belladonnæ extracti, grs. iij. M.  
 Make ten pills. One every four or six hours.

He questions the value of the chloride of iron treatment, but believes that by the local use of nitrate of silver effective results may be obtained in traumatic erysipelas. For the facial variety, he prefers inunctions of oil and cocoa butter.

DR. BÉHIER, PARIS.

854. R. Tamarindi, ℥iss  
 Mannæ, ℥j  
 Aquæ, f.℥x.

Boil, and add toward the end,

Potassii bitartratis, ℥vj  
 Antimonii et potassii tartratis, gr. iss. M.

To be given in four or five doses, at the intervals of an hour, in the commencement of erysipelas. If there be delirium, order an enema of musk and opium.

855. R. Antimonii et potassii tartratis, gr. ¾  
 Sodii sulphatis, ℥iv. M.

Add to a pint of veal broth, and give a cupful every one or two hours, as a sedative in the beginning of acute erysipelas.

856. R. Spiritûs camphoræ, f.℥j  
 Infusi sambuci florum, Oj. M.

A useful fomentation in erysipelas.

RÉSUMÉ OF REMEDIES.

*Aconite* was a favorite remedy, in sthenic cases with much febrile action, of the late Mr. LISTON, of London.

\**Ammonii Carbonas* is strongly recommended by Sir THOMAS WATSON, who precedes its use by a purgative.

*Belladonna*, in repeated doses of gr.  $\frac{1}{16}$ , is often of benefit in reducing arterial excitement. Its effects are enhanced by the previous administration of aconite.

*Ferri Bromidum* has been employed, with good results, by a number of American physicians.



*Potassii Chloras*, in combination with the tincture of cinchona, is recommended by Dr. COPLAND in erysipelas supervening upon anasarca, or if there be any tendency to gangrene, or if the temperature of the surface be low and the color deep or dark.

\* *Quiniae Sulphas* is indicated in all cases where the tongue becomes clean and the skin moist, and should at once be resorted to if the pulse be soft, tremulous, or very rapid, the heat moderate, and the delirium low and muttering, or if suppuration or sloughing has commenced. In such cases it may be combined with the tincture of the chloride of iron, with great advantage.

\* *Sodii Sulphis* (as also the bisulphite, and the hyposulphite, and sulpho-carbolate of soda) is strongly recommended by Professor POLLI, of Milan.

*Terebinthinæ Oleum* has been given with great benefit when the coma has been intense, the pulse sinking, and the tongue dry and glazed. Dr. COPLAND counsels the local application of turpentine epithems.

#### LOCAL APPLICATIONS.

*Adeps.* Lard inunction is regarded by ERASMUS WILSON as superior to all fluid applications. He first relaxes the skin with hot water or steam, then saturates the surface with hot lard, and afterward covers with wool.

*Ammonii Carbonas* allays the irritation of the surface. The following lotion, recommended by ERASMUS WILSON, may be employed:—

857. R.	Ammonii carbonatis,		
	Plumbi acetatis,	āā	℥j
	Aquæ rosæ,		f.℥viij. M.

*Brominium.* Dr. GOLDSMITH, U. S. A., recommends (*American Medical Times*, 1863) the following solution:—

858. R.	Brominii,		℥j
	Potassii bromidi,		gr.℥x
	Aquæ destillatæ,	q. s. ad.	f.℥iv. M.

*Calx Chlorinata.* The following solution has been found of benefit:—

859. R.	Calcis chlorinatæ,	℥j-ij	
	Aquæ,	℥j.	M.

The parts should be kept constantly wet with this lotion.

*Ferri Sulphas* was much employed by VELPEAU, both in solution and in ointment:—

860. R.	Ferri sulphatis,	℥j	
	Aquæ,	℥j.	M.

861. R.	Ferri sulphatis,	℥ij	
	Adipis,	℥j.	M.

*Glycerina* is of great service, by allaying irritation and preventing the action of the air.

*Hæmatoxyli Lignum* has been found by M. DESMARTIS (*Medical Times*, June 14th, 1862) of value in severe traumatic erysipelas, applied in ointment:—

862. R.	Extracti hæmatoxyli,		
	Adipis,	āā	℥ss. M.



*Hydrargyri Chloridum Corrosivum* was found by Dr. DEWEES to be as effectual as mercurial ointment, when applied in the following solution :—

863. R. Hydrargyri chloridi corrosivi, gr. j  
Aquæ, f. ʒj. M.

*Hydrargyri Unguentum* sometimes arrests the course of the disease, when smeared over the parts three or four times. It usually causes salivation.

\**Iodine*, painted over the inflamed parts, often quickly alleviates the symptoms. By many it is preferred to the nitrate of silver solution.

*Plumbi Subacetatis Liquor Dilutus*, kept constantly applied, soothes the parts.

*Potassii Permanganas* is recommended by Dr. LEAVITT (*Braithwaite's Retrospect*, vol. vi, 1867), in the following solution :—

864. R. Potassii permanganas, gr. xxx  
Aquæ, ʒj. M.

*Sulphurosum Acidum*, with equal parts of glycerine, has been found to arrest the spread of the inflammation and relieve the burning.

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## GOUT.

DR. HENRY W. FULLER, LONDON.

For the purpose of clinical instruction, Dr. FULLER divides cases of acute gout into two classes, namely: 1. Cases in which the excretory organs are originally sound and functionally active—cases in which the attack of gout is due principally to excess and indiscretions of diet; and 2. Cases in which the excretory organs are in some way disordered, and fail in performing their eliminatory functions—cases in which the patient is not necessarily guilty of indiscretions of diet, but in which the liver and kidneys fail in their action, either as the result of functional disorder, or of organic change in their structure.

The first class of cases correspond with those which pass under the name of asthenic gout; the tongue is usually furred, the urine loaded, and the bowels are commonly torpid. In these cases, until the acute symptoms have subsided, Dr. FULLER restricts the diet to liquids, administers a saline draught containing sulphate and carbonate of magnesia, and a few drops of colchicum wine; occasionally gives an aperient pill containing calomel, aconite and opium, and wraps the joints in finely carded wool, or in flannels steeped in a solution of soda and laudanum. As the acute symptoms subside, a more generous diet is permitted, and some light,



bitter tonic, such as tincture of gentian or calumba, is added to the mixture.

The second class of cases have more affinity with what is termed atonic gout: the tongue is often clean and the urine clear—sometimes of low specific gravity—and the bowels are regular. In these cases Dr. FULLER does not restrict the diet to the same degree; he allows a little meat without vegetables, and also, if desired, a glass of sherry or a little spirits and water. He acts freely on the skin by means of the hot-air bath; administers an aperient in the morning, containing taraxacum and sulphate of magnesia, and during the day he gives a warm stomachic draught containing ammonia and a few grains of soda in a light bitter infusion. Occasionally a dinner pill is prescribed containing rhubarb and a grain of colchicum; and in some instances, characterized by pale, clear urine, a draught containing quinine, the mineral acids, and taraxacum, is substituted for the mixture just referred to. In these cases, as soon as the acute symptoms have subsided, a drachm of the syrup of phosphate of iron is given each morning before breakfast.

DR. H. SALTER, LONDON.

The *local treatment* of this author is all that is peculiar. It consists in the application of the following lotion:—

865. R.	Potassii iodidi,	ʒj	
	Potassæ bicarbonatis,	ʒj	
	Aquæ bullientis,	℥j.	M.

To this a little tincture of opium may be advantageously added.

Double lint, saturated with this lotion, is applied to the part affected, and covered with oil-silk; to that is put a layer of cotton-wool, and the whole swathed in a flannel bandage. The lint should be taken off from time to time, and re-dipped in the lotion. The relief that the patients experience from this application is very great. With or without this lotion there are three other things on which Dr. SALTER insists in the local treatment of a gouty joint—perfect physical rest, protection, and preventing the part affected being too dependent.

PROF. S. D. GROSS, PHILADELPHIA.

866. R.	Vini colchici radicis,	f.ʒj	
	Morphiæ sulphatis,	gr. j.	M.

For one dose, at bedtime, in gouty affections of the joints.



This treatment should be preceded by purgation or venesection, if indicated, and be followed in the morning by a gentle laxative. These doses are recommended by our author as the most efficient, and as seldom disappointing the most sanguine expectations. Where there is a full, bounding pulse, indicating excessive arterial action, then the following will come into play :—

- |         |                                 |         |    |
|---------|---------------------------------|---------|----|
| 867. R. | Tincturæ aconiti radicis,       | f. 3j   |    |
|         | Morphiæ sulphatis,              | gr. ij  |    |
|         | Antimonii et potassæ tartratis, | gr. j   |    |
|         | Aquæ,                           | f. 3ss  |    |
|         | Syrupi zingiberis,              | f. 3ss. | M. |
- A teaspoonful every three hours.

Veratrum viride may be substituted for the aconite in the same or double the dose. The action of these potent remedies should, of course, be carefully watched and kept within proper limits. Together with the above means the following should be employed, to neutralize the acid state of the blood :—

- |         |                       |      |    |
|---------|-----------------------|------|----|
| 868. R. | Potassæ bicarbonatis, | 3j   |    |
|         | Sodæ bicarbonatis,    | 3ij. | M. |
- For six powders. One to be taken every six hours, in a wineglassful of water.

As a local application nothing will be found better than,

- |         |                    |         |    |
|---------|--------------------|---------|----|
| 869. R. | Tincturæ opii,     | f. 3j   |    |
|         | Linimenti saponis, | f. 3ij. | M. |

To be rubbed in twice a day, and constantly kept in contact with the affected joint by means of a piece of flannel covered with oiled silk. A fly-blister may be used if the disease manifests a disposition to linger.

PROF. A. B. GARROD, KING'S COLLEGE, LONDON.

- |         |                    |         |    |
|---------|--------------------|---------|----|
| 870. R. | Lithii carbonatis, | gr. iv  |    |
|         | Aquæ rosæ,         | f. 3vj. | M. |

This solution is to be warmed and then imbibed by means of charpie or a piece of sponge, and applied on the seat of pain, and covered by a sheet of gutta-percha. Two or three times a day the application is to be wet with the solution, in order to keep it always moist. Internally, the carbonate of lithia, in doses of gr. ij-vj, or the citrate, in doses of gr. v-x, in aerated water.

- |         |                |      |  |
|---------|----------------|------|--|
| 871. R. | Fraxini foliæ, | 3ss. |  |
|         | Aquæ,          | Oj.  |  |

The leaves are to be boiled in the water during ten or fifteen minutes.



then strain and sweetened. To be taken in fractional doses during the day, an hour before the meals, in chronic gout.

The leaves of common ash, though much extolled in France and Germany in the treatment of gout and rheumatism, have not succeeded in the hands of our author, in acute gout; when taken for a long time and in large quantities, in the form of decoction of the leaves, they have probably some influence in keeping off the attacks in chronic gout.

#### DR. GALTIER-BOISSIERÈ, FRANCE.

The author gives eight drops of the tincture of colchicum about every two hours, in a small cup of tea or weak coffee, until thirty-two drops are administered during the first day, in acute gout. The next day the colchicum is stopped, and the patient put on the use of sulphate of quinine, fifteen grains being given, in four doses in the course, with a few drops of dilute sulphuric acid in a cup of weak coffee. The third day, forty drops of tincture of colchicum are given; the fourth day, fifteen grains of quinine; and the fifth day, fifty drops of the tincture; that is to say, each time one-fourth more. This increase of dose is to be stopped so soon as abundant diaphoresis and diuresis show themselves, which usually are followed by a marked diminution of the pain. But the quantity of one fluid drachm and a half of the tincture is never to be exceeded during the day, taken in four doses, at four hours' interval.

#### RÉSUMÉ OF REMEDIES.

*Aconite.* Professor Gross recommends tincture of aconite root, with morphia and antimony, when there is excessive arterial action.

*Ammonii Phosphas* has been recommended, in ʒj doses daily, highly diluted. Dr. GARROD has derived much benefit from the long-continued use of this salt in chronic conditions of the gouty habit.

*Cajuputi Oleum*, in doses of gtt.v-vj, frequently repeated, is serviceable in retrocedent gout.

*Colchicum*, in gout, has been compared to cinchona in ague, but unfortunately, unlike the latter remedy, it does not prevent a return of the disease. Dr. A. B. GARROD states that often an almost magical change is produced by a single large dose, without the least increase in any of the secretions, the effect showing itself in the rapid decrease of the pain, and other symptoms of the joint inflammation.

*Frazini Folia.* Ash leaves, in infusion, have been used by Dr. A. B. GARROD with advantage, but, as he remarks, the amount of the infusion given daily being considerable, the action of the diluent must not be forgotten.

*Guaiacum* is considered by Dr. A. B. GARROD as especially useful in the



asthenic gout of old subjects. It may be given continually, for a long time, without injury. This remedy is much employed in Germany.

*Muriaticum Acidum Dilutum* is strongly recommended by Dr. J. F. DUNCAN (*Medical Press*, May 2d, 1866), as acting more directly upon the primary cause of the disease, the presence of lithic acid in the blood, and holding out a greater prospect of effecting a real cure than any antacids. He directs the following mixture :—

872. R.	Acidi muriatici diluti,	f. ʒi ss	
	Spiritus chloroformi,	f. ʒij	
	Tincturæ colchici,	f. ʒj	
	Infusi cascarillæ,	f. ʒvj.	M.

Two tablespoonfuls every three hours.

*Lithiæ Carbonas* is a valuable remedy. So also are the natural lithia waters of Baden-Baden.

*Magnesiæ Carbonas*, dissolved in an excess of carbonic acid, is an excellent manner of exhibiting magnesia, which is often of great service in chronic gout.

*Manna* is an excellent aperient, in the following combination :—

873. R.	Mannæ,	ʒi ss	
	Vini colchici,	m. xx	
	Potassii tartratis,	ʒij	
	Tincturæ cardamomi compositæ,	f. ʒj	
	Infusi sennæ compositi,	f. ʒx.	M.

For one draught.

*Oleum Olivæ* is strongly recommended by Dr. J. SPENCER RAMSKILL, of London. See above.

*Opium* is now rarely given alone internally in gout, but is frequently combined with other remedies.

*Podophyllum* is given with good effect, in the form of pill, with henbane or belladonna, when it is important to secure free biliary evacuations.

*Potassii Iodidum* is frequently indicated in chronic gout. When fluid effused into the joint cavities is slow of absorption, the iodide often acts to great advantage.

*Potassii Nitras* is recommended by Professor BENNETT, of Edinburgh, in acute gout.

\**Rheum*, taken regularly between the attacks, often wards off a return. At the period of an impending paroxysm, Professor GRAVES, of Dublin, advises the following :—

874. R.	Pulveris rhei,	ʒj	
	Aurantii corticis,	ʒij	
	Pulveris aloës c. canella,	ʒij	
	Spiritus vini gallici,	ʒiv.	M.

A tablespoonful of the strained liquor, in water, night and morning.

#### EXTERNAL APPLICATIONS.

*Aconitia*, applied locally, over the seat of the pain, is an excellent palliative.

*Alcohol*. Sir C. SCUDAMORE recommends a tepid lotion of one part of alcohol and three of camphor mixture.



*Cajuputi Oleum*, externally, is of much benefit.

*Colchicum*, locally to the affected part, is highly praised by Dr. LAYCOCK.

*Iodoform*, externally applied, has succeeded in the hands of some practitioners in relieving the pain.

\**Iodine*, locally used, is a very valuable remedy. The following formula is said to afford sometimes almost instant relief:—

875. R.	Iodinii,	ʒij	
	Alcoholis,	f.ʒj	
	Aquæ,	f.ʒvj--f.ʒj.	M.

Dr. J. PEREIRA says that no external remedy gives such relief as iodine, but that the skin of different individuals is most unequally susceptible to its influence; in some it excites great pain, while in others it produces scarcely any. It is especially useful when effusion into the synovial membranes or sheaths has taken place.

*Morphia*. A solution of morphia, applied by means of lint, often affords great relief:—

876. R.	Morphiæ muriatis,	gr.viij	
	Aquæ,	f.ʒj.	M.

*Sinapisms* to the inflamed part often afford speedy relief. They are also useful in retrocedent gout, in inviting a return of the disease to its original seat.

*Sodii Phosphas*. The finely powdered bibasic phosphate of soda, sprinkled over moistened sponge-piline, and applied so as to envelope the whole of the affected part, affords immediate relief in many cases.

*Sulphur*. The exposure of the bed-clothes to strong sulphur fumes, before they are spread over the patient, is recommended to induce copious perspiration and relief of the pain.

*Tabaci Folia*. The application of the moistened tobacco leaf often affords great relief.

*Veratria*, in ointment, is of occasional service, and is recommended by Sir C. SCUDAMORE:—

877. R.	Veratriæ,	gr.xxx	
	Unguenti,	ʒj.	M.

*Zingiber*. A ginger plaster placed over the epigastrium relieves the pain or gout in the stomach.

## MALARIAL DISEASES.

### THE PERSONAL PROPHYLAXIS OF MALARIA.

The general belief, which has also received the sanction of late medical authority (Professor HERTZ, in Ziemssen's *Cyclopædia*, vol. ii, page 657), that the cinchona alkaloids are safe and efficient prophylactics in malarial regions, is incorrect, and should be re-



nounced. It is even dangerous, for it has been well established, by the observations of the English surgeons in West Africa and elsewhere, that when long used as a preventive, it not only loses its prophylactic, but also its therapeutic powers (see Surgeon Gore's "Medical History of the West African Campaign," page 164). The best prophylactics are a generous diet, plenty of work, mental and physical, but not to exhaustion, avoidance of night air and wet, proper clothes, and a cheerful disposition. The eucalyptus, in the form of infusion or extract, and infusion of box leaves, have been lately advocated on respectable authority.

The free use of pepper in the food, and the habit of taking a small cup of strong coffee on rising, may be favorably mentioned. During the night, doors and windows should be closed, and an open fire should be lighted in the evening and early morning. The drinking water should be filtered, or thoroughly boiled before using.

PROFESSOR S. M. BEMISS, M. D., NEW ORLEANS.

In violent forms of congestive chill, or algid pernicious malarial fever, this experienced physician states that opium, chloroform, belladonna, chloral hydrate and bromide potash, prove more or less valuable, according to the idiosyncrasy of the patient, or the circumstances under which they were used. Opium is the most valuable of the agents, and may be combined with other drugs, as an adjuvant. It is better to use it in moderate doses, and repeat these at short intervals. Twenty drops of laudanum, with half a teaspoonful of chloroform, is an efficient prescription. One-sixth of a grain of morphia, with one-fortieth of a grain of atropia, may be injected subcutaneously. Nitrite of amyl is highly recommended. These remedies may be used at any stage of the chill without fear of prejudicing the subsequent career of the case.

PROFESSOR HARVEY L. BYRD, M. D., BALTIMORE.

In the treatment of that much-dreaded and often rapidly fatal condition, the "Congestive Chill," Prof. BYRD knows nothing of equal value to *chloroform* and *opium*, used as follows:—

878. R. Chloroformi,

q. s.

Inhale to anæsthesia, or to the restoration of the circulation in the extremities.

The doctor often prescribes inhalation of chloroform to a limited extent to mitigate or curtail the *cold stage* in intermittent and remittent fevers. Or,



879. R. Pulveris opii, ℥j  
 Pulveris capsici, gr.j. M.  
 Make viij powders. One powder every hour, in severe cases, until the re-establishment of the circulation.

He is accustomed to give between the powders ten to fifteen drops of aromatic sulphuric acid, in a little water.

When reaction of the circulation is established in "congestive chill," the case should be treated in the usual manner.

DR. ALONZO HARLOW, DETROIT, MICHIGAN.

In *typho-malarial fever*, this physician states (*Peninsular Medical Journal*, December, 1873) that he had used with much satisfaction the following:—

880. R. Quinæ sulphatis, gr. xxx  
 Olei piperiti nigri, gtt. xxiv  
 Acidi sulphurici aromatici, ℥j  
 Syrupi simplicis, ℥iv  
 Alcoholici, ℥j. M.  
 Tablespoonful every hour until half the quantity has been used; afterward, every other hour.

If the chills recur, repeat in same or less quantity; milk punch to be used freely. He used aconite, or veratrum viride, or gel-seminum, for the fever, and did not believe in too general stimulation with alcoholic stimulants. At a later stage, and in some cases, diffusible stimulants, as ammonia carbonate and brandy, are necessary.

DR. BENJAMIN LEE, PHILADELPHIA.

This practitioner recommends a full dose of quinine about an hour before the chill, and half an hour before it, the following:—

881. R. Chloral hydratis, ℥j  
 Aquæ camphoræ, ℥j. M.  
 For one dose.

PROFESSOR GREENSVILLE DOWELL, M. D., TEXAS.

882. R. Quinæ sulphatis, gr. xx  
 Ferri et quinæ citratis, gr. xxx  
 Extracti gentianæ, gr. x  
 Extracti hyoscyami, gr. xij. M.  
 Make twelve pills. Give one every hour till six are taken.

This experienced practitioner says of this prescription that when administered after the liver has been acted on by a mercurial, it will cure any case of enlarged spleen or chills, if persisted in.



JOHN HERBERT CLAIBORNE, M. D., OF VIRGINIA.

883. R. Hydrargyri chloridi mitis,                      āā      gr. iv  
           Pulveris ipecacuanhæ et opii,                      gr. xvj.      M.  
           Quiniæ sulphatis,  
 For four pills. Two to be given at bedtime, and two the following morning.

This is Dr. CLAIBORNE's usual first prescription in quotidian intermittent and remittent fever, and it rarely fails.

C. W. FRISBIE, M. D., EAST SPRINGFIELD, N. Y.

There are some cases of intermittent fever which will not yield to quinine alone, when the following pill answers a nice purpose:—

884. R. Quiniæ sulphatis,                                      ʒj  
           Zinci sulphatis,                                      ʒss  
           Capsici,  
           Pilulæ hydrargyri,                                      āā      ʒj.      M.  
 Divide into sixty pills.

In order to get the best effect from the above pill, commence with six daily, and reduce one each day.

DR. FELIX DE WILLEBRAND, PROFESSOR OF MEDICINE IN THE UNIVERSITY OF HELSINGFORS, FINLAND.

Prof. DE WILLEBRAND believes that malarial fever can be combated by other specifics besides cinchona, and that iodine is one of them. He directs:—

885. R. Iodinii,    ʒj  
           Potassii iodidi,    ʒij  
           Aquæ destillatæ,    f. ʒiss.      M.  
 Five drops in a small glass of water every two hours during the day.

Various physicians have lately extolled chloroform in obstinate chills:—

886. R. Chloroformi,  
           Tincturæ cinchonæ,                                      āā      f. ʒj.      M.  
 One or two teaspoonfuls in water hourly, for four hours preceding the expected chill.

DR. PAVESI, MORTARA, ITALY.

887. R. Sodii chloridi,    ʒiss  
           Ferri redacti,    ʒv  
           Acidi hydrochlorici,    f. ʒv  
           Salicin,    ʒj.      M.  
 Gr. v-ʒ three times a day, in debility from malaria.



Salicin, in one to two-scruple doses, three to six times daily, is an efficient remedy in mild intermittents.

## DR. CLEMENS, PARIS.

888. R. Acidi arseniosi,  
Potassæ carbonatis,                      āā      ʒj.

Dissolve in water, f.ʒix, and add brominii, ʒij. Keep in the dark, and shake frequently, for four weeks. Three or four drops, in water, twice a day.

889. R. Extracti eucalypti,                      ʒij  
Tincturæ cinchonæ,                      f.ʒiiij.                      M.

One or two teaspoonfuls three times daily.

The eucalyptus has not yet met the expectations of American physicians.

890. R. Quiniæ sulphatis,  
Ferri redacti,                      āā      ʒj  
Acidi arseniosi,                      gr.ij  
Piperinæ,                      ʒiss.                      M.

Make twenty pills. One three or four times a day. A favorite prescription, in obstinate chills, with some Southern physicians.

The *hypodermic* use of quinine is of extreme value in severe congestive and comatose cases, and elsewhere when, for any reason, it cannot be administered by the mouth. The following formula, containing gr.iv to f.ʒj, is an appropriate one:—

891. R. Quiniæ sulphatis,                      gr.xxxij  
Alcoholis diluti,                      f.ʒvijs  
Aquæ ammoniæ,                      f.ʒss.                      M.

In the *enlarged spleen*, often associated with leucocythemia, which so frequently follows malarial disease, the iodide of ammonium, gr.v three times a day, with inunctions of the red iodide of mercury, has been found efficient. Dr. DA COSTA prefers, however, the treatment by the hypodermic administration of ergotine, gr.iii-v daily, which has certainly produced excellent results.



## MILK SICKNESS.

DR. J. C. PATTON, OF INDIANA.

This practitioner describes (*Indiana Journal of Medicine*, Aug. 1875) a treatment which, he says, "almost deserves the character of a specific:"—

892. R. Infus. sennæ foliarum, Oj  
Magnesiæ sulphatis, ℥xij. M.

Of this give from one to two ounces, which will be vomited; then immediately give a second dose, and so continue until it is retained.

Large injections of cold whiskey and water should be thrown well up the rectum. For milder cases, sulphur, in free doses, until the bowels are moved, followed by diffusible stimulants, is sufficient.

## PURPURA HÆMORRHAGICA.

PROF. E. TROUSSEAU, PARIS.

893. R. Ferri et potassii tartratis, ℥j-ij  
Acidi tartaraci, gr. iij  
Syrupi tolutani, f. ℥j  
Aquæ cannellæ, f. ℥v  
Aquæ destillatæ, f. ℥iijss. M.

A tablespoonful from hour to hour, in purpura hæmorrhagica.

## RÉSUMÉ OF REMEDIES.

*Ergot* should be combined with tonics, and will be found of value.

*Ferrum* is always useful. The following prescription is a good one:—

894. R. Ferri sulphatis exsiccatæ, ℥ij  
Quiniæ sulphatis, ℥j  
Strychniæ sulphatis, gr. ss. M.

Make twenty pills; one thrice daily.

*Sulphuricum Acidum* sometimes acts happily in purpura.

*Terebinthinæ Oleum* is an important agent in the treatment of purpura. It should be given in emulsion.



## ACUTE RHEUMATISM.

## SALICIN AND SALICYLIC ACID TREATMENT.

DR. T. MACLAGAN, DUBLIN.

This author (*Lancet*, March, 1876), praises the action of *salicin* in acute rheumatism. Relief is afforded in forty-eight hours or less:—

895. R. Salicin,

gr.xv.

This amount in water every three hours.

Later observers corroborate this statement; gr.x, every two hours, is preferred by some.

Decoction of the inner bark of the willow (*Salix fragilis*, etc.), which contains the active principle, *salicin*, has also been used with excellent results.

*Salicylic acid*, now produced by synthesis, was formerly derived from salicin. Dr. L. TRAUBE, of Berlin, and many following him, give it high praise in acute and subacute rheumatism. It disperses the fever and soothes the pain. Grains xv to xxx in powder, in a capsule, may be given every hour. Or,

896. R. Acidi salicylici,  
Sodæ boratis,  
Glycerinæ,  
Aquæ menthæ,

$\overline{3}^{ss}$   
 $\overline{3}j$   
f.  $\overline{3}j$   
f.  $\overline{3}v$ . M.

A tablespoonful as occasion may require.

The borax makes the acid more soluble.

Dr. STRICKER, of Berlin, in a resumé of his experience with salicylic acid, says:—

1. If the salicylic acid act thoroughly in the manner expected of it, there should be, during the treatment of articular rheumatism by a certain quantity given internally, no return of the disease in a hitherto unaffected joint, nor any secondary inflammation of the endocardium or other serous membranes.

2. In order to prevent a relapse, it is necessary to continue the use of the salicylic acid in small doses for some days after the end of the principal treatment.

3. Salicylic acid is of doubtful use in chronic articular rheumatism.

4. It is not likely to be useful in gonorrhœal and dysenteric rheumatism, or in septæmic inflammation of the joints.



## THE ALKALINE TREATMENT.

DR. H. W. FULLER, OF LONDON.

The treatment of rheumatic fever adopted by Dr. FULLER, at St. George's Hospital, is *essentially alkaline*, and consists not only in administering salines and small doses of alkalies, but in pushing alkalies, as rapidly as possible, to the point of producing alkalinity of the secretions. He usually prescribes:—

897. R.	Sodæ bicarbonatis,	ʒiiss	
	Potassæ acetatis,	ʒss	
	Liquoris ammoniæ acetatis,	f.ʒiij	
	Aquæ,	f.ʒiiss.	M.

For one dose. To be taken in a state of effervescence, in combination with

898. R.	Acidi citrici,	ʒss	
	Aquæ,	f.ʒij.	M.

The quantity of the fluid not only takes off from the nauseous quality of the medicine, but promotes its absorption, and thereby facilitates its action. As soon as the urine manifests an alkaline reaction, the dose is repeated three times only in twenty-four hours; and on the following day, if the urine still remains alkaline, twice only. After three days, two doses only of this mixture in twenty-four hours usually suffice to keep the urine alkaline; and then Dr. FULLER adds two grains of quinine to each dose; or, if quinine be not well borne, he substitutes:—

899. R.	Sodæ bicarbonatis,		
	Potassæ acetatis,	āā	ʒss
	Tincturæ cinchonæ,		f.ʒiiss
	Decocti cinchonæ flavæ,		f.ʒiiss.
			M.

For one dose.

Day by day, as the tongue cleans, and the other symptoms subside, the quantity of alkali is cautiously diminished, until a simple quinine draught is taken; but the condition of the urine is constantly watched, with a view to the immediate administration of a small quantity of alkali, should the least acidity call for its use. The diet is another point on which Dr. FULLER lays particular stress. He gives beef-tea or broth throughout, and, if stimulants appear to be needed, does not object to their being administered cautiously; but he withholds solid food until the tongue is quite clean, and has often proved to his class in the wards that a too early recourse to meat will induce a relapse, and prevent convalescence.



Under this treatment, Dr. FULLER says, the pains commonly subside in five or six days, and the patients are seldom ten days in bed. Moreover, the heart may be regarded as safe from attack; for in two instances only, in the whole course of his hospital experience, has inflammation, either of the endocardium, or pericardium, arisen after the patient has been twenty-four hours under treatment.

## DR. FINCHAW, WESTMINSTER HOSPITAL, LONDON.

900. R. Potassæ bicarbonatis, 3j  
 Potassæ nitratis, 3ij  
 Liquoris ammoniæ acetatis,  
 Aquæ, aa f. ʒiij. M.  
 A tablespoonful, in water, every four hours, with a full opiate at night, if the pain be severe.

He does not think it advisable to continue the alkaline treatment for any lengthened period; but to give quinine, in doses of two or three grains, every six hours, when the urgent symptoms begin to yield, especially if the sweating is over-profuse. He believes that, by giving quinine earlier than is generally the custom, convalescence is less tedious, and there is less chance of relapse. As regards cardiac complications, if pericarditis supervene, and there be sharp, catching pain, he applies a few leeches, followed by linseed poultices; should the pain be slight or absent, he omits the leeches. In all cases he applies, subsequently, one or more blisters. As to medicines, he continues the alkalies, giving at the same time a grain of opium every four or six hours. Should endocarditis manifest itself, he contents himself with the alkaline treatment, as he cannot satisfy himself that local remedies have any effect.

## HENRY POWER, F. R. C. S., ETC., LONDON.

901. R. Tincturæ aconiti radicis, mxxiv  
 Tincturæ colchici, f. ʒijss  
 Aquæ camphoræ, f. ʒiv. M.  
 A tablespoonful three or four times a day.

In feeble patients, in women, and in children of from ten to fourteen years of age, the quantity of each tincture may be reduced to one-half; and when the water is or has been high-colored, with deposits of the lithates, the bicarbonate and nitrate of potash, with a little spirit of chloroform or of nitric acid, may be advantageously added.

Our author has applied these remedies to a considerable extent in various cases of rheumatic disease for the last few years, and



finds their use attended with great benefit when judiciously employed. They are particularly beneficial in *rheumatic ophthalmia*.

In many instances, when the disease presents a periodic character, recurring with great regularity at a certain period of the night, the addition of two or three grains of quinine, or a few minims of Fowler's solution, may be made.

DR. F. J. FARRE, LONDON.

Dr. FARRE's ordinary mode of treating acute rheumatism is the "alkaline." He usually commences with three five-grain doses of calomel, followed by:—

902. R.	Magnesiae sulphatis,	ʒij	
	Tincturae sennae,	f.ʒij	
	Spiritus ammoniae aromatici,	℥xx	
	Infusi sennae compositi,	f.ʒiss.	M.

For one dose.

He repeats this daily till the evacuations are natural. At the same time he gives the bicarbonate or acetate of potash, in twenty or thirty-grain doses, every four or six hours, according to the severity of the attack, generally using the former, but preferring the latter when there is synovial effusion.

When there is little or no perspiration, or when the heart is much excited, he adds ten or fifteen grains of nitrate of potash. He not unfrequently, also, gives one grain of opium every night. For local treatment, especially of the smaller joints, he relies chiefly on the tincture or liniment of iodine, using the tincture for women and children, the liniment for the robust; one or the other of these is used in almost every case, and with nearly certain relief. When, however, there is synovial effusion, Dr. FARRE uses either mustard or cantharides plaster. Mustard is always useful, especially when applied to the larger joints, as the shoulder. The appetite being always faulty, Dr. FARRE gives milk diet until the tongue is clean or cleaning. Meat given before it can be digested, immediately brings back pain in the joints. He keeps the patient between blankets. As soon as the pain has gone, and the tongue is clean, he gives bitter tonics, omitting or diminishing the alkali if the urine is alkaline or neutral.

DR. FLEMING, BIRMINGHAM, ENGLAND.

903. R.	Potassae bicarbonatis,	gr xxx	
	Aquae,	f.ʒij.	M.

For one dose, before each meal. Add one-half an ounce of fresh lemon juice, and take the mixture during effervescence.



If there be high fever, from one to three minims of *Fleming's tincture of aconite* are added to each draught. If there be much pain in the muscles, in place of aconite, from five to ten minims of *tincture of hemlock* are added to each dose of the alkaline. If, on the other hand, the periosteum be affected, from two to six grains of the *iodide of potassium* are given. To relieve pain and secure sleep, Dr. FLEMING orders, at bedtime, a full draught of morphia and Indian hemp; as a drink, potassa water, or lemonade, freely. If necessary, colocynth and hyoscyamus pill is given to relieve the bowels. Cotton wadding is applied to the affected joints. Active and repeated counter-irritation, and poultices over the heart, are employed in cardiac inflammation. During convalescence, warm clothing, full diet, with quinine and iron. After considerable experience, Dr. FLEMING has found that this treatment has furnished very good results, and that the number of those attacked with cardiac inflammation, *after* their admission into the hospital, is undoubtedly small. Placing the patient between blankets materially promotes perspiration, and prevents chills.

THOMAS KING CHAMBERS, M. D., ETC., LONDON.

This author calls rheumatic fever "a pleasant disease for the doctor to treat, though not for the patient to bear," and gives a very simple, uniform plan of treatment, which, he states, hardly ever requires modification.

*Bedding.*—The patient's bed is made in a peculiar fashion. No linen should touch the skin. A slight calico shift or shirt may be allowed; but if the patients possess underclothing only of the prohibited sort, they are better naked. Even a linen front to the shirt is dangerous. The sheets should be removed and the body carefully wrapped in blankets, the newest and fluffiest that can be got. The head is to be carefully protected from currents of air.

*Fomentations.*—Those joints or limbs which are swollen, red, or painful, are to be wrapped up in flannels, soaked either in hot water or a decoction of poppy heads, with half an ounce of carbonate of soda to each pint.

*Curative Drugs.*—If the skin is red, swollen or painful about the joints, if motion is impossible or the cause of exquisite suffering, and especially if these phenomena are metastatic, then the "alkaline treatment" is employed, as follows:—

904. R. Potassæ carbonatis,  
Aquæ camphoræ,

℞j  
f. ʒij. M.



For one dose. To be repeated every three hours, day or night, when awake.

If, however, the above symptoms are insignificant, and the pain is felt more in the bones, being intensified by pressure rather than by motion, and fixed, not metastatic, then two grains of iodide of potassium are to be added to each dose. So soon as the symptoms take a favorable turn, the alkali is to be omitted altogether, and only the iodide of potassium given.

*Palliatives.*—Opium is to be administered in amounts proportionate to the subjective sensation of pain—from one to two grains at a dose. Immediately upon the relief of the pain, the quantity is diminished.

Pure opium in the pill, and the tincture, are the best preparations. If the pain remains fixed in one joint after it has left the other places, leeches are to be applied there and the part kept poulticed. Bruised laurel leaves may be mixed with the poultice. If the heart becomes affected, leeches and poultices are to be applied to the cardiac region.

*Diet.*—The food is to be varied to some extent by the social and personal state of the patients. If they have been hearty and well-to-do persons before the attack, simple diet is proper, *i. e.*, bread and butter, gruel and tea. If they have been ill-nourished, a pint of broth or of beef-tea is added.

J. M. DA COSTA, M. D., PHILADELPHIA.

905. R. Ammonii bromidi,  $\overline{3}$ ss  
Tincturæ aurantii corticis, f.  $\overline{3}$ ss.  
Aquæ, f.  $\overline{3}$ ijss. M.

A dessertspoonful every three hours, except at night. In acute rheumatic fever the beneficial influence of the bromide of ammonium is undoubted.

Over the pains and aches of acute rheumatism this remedy also exerts an unquestionable control; but in chronic rheumatism it is decidedly inferior to iodide of potassium. But slight amelioration follows its use in persistent swelling of the joints of rheumatic origin, and none in rheumatism due to a venereal taint.

906. R. Atropiæ sulphatis, gr.  $\frac{1}{50}$   
Aquæ destillatæ, ℥x. M.

For one injection. To be thrown under the skin, in certain forms of muscular rheumatism, particularly wry neck, over or into the rigid parts. To be repeated once a day. Sometimes the most marked and



speedy relief follows this treatment, after ordinary remedies have failed.

907. R. Potassii iodidi, ʒij  
Vini colchici radiceis, f.ʒij  
Morphiæ sulphatis, gr. iij  
Syrupi, f.ʒij  
Aquæ, f.ʒij. M.

A teaspoonful three times a day, after meals, in muscular rheumatism.

908. R. Potassæ carbonatis, ʒij  
Potassæ acetatis, ʒiij  
Vini colchici seminis, f.ʒij  
Syrupi tolutani, f.ʒiiss  
Aquæ, f.ʒss. M.

A teaspoonful thrice daily, in lumbago, the following liniment to be rubbed in night and morning:—

909. R. Chloroformi, f.ʒss  
Linimenti ammoniæ, f.ʒiiss  
Linimenti saponis, f.ʒij. M.

In a week or ten days, after the pain has subsided, apply:—

910. R. Emplastri picis cum cantharide, āā  
Emplastri Logani, āā equal parts. M.

The quickest way of treating lumbago is by throwing  $\frac{1}{60}$ th of a grain of atropia under the skin near the affected muscles. This will sometimes dissipate the attack as if by magic.

911. R. Tincturæ guaiaci, f.ʒij  
Vini colchici radiceis, f.ʒij  
Potassæ bicarbonatis, ʒss  
Syrupi aurantii corticis, f.ʒij. M.

A dessertspoonful in water, thrice daily, in rheumatic arthritis. Also have the joints wrapped in cotton, and painted, morning and evening, with equal parts of tincture of iodine and alcohol until they become sore. Sulphur baths are beneficial. Small blisters are also of service in the neighborhood of the joints, frequently repeated and dressed with:—

912. R. Morphæ acetatis, gr.  $\frac{1}{4}$   
Pulveris marantæ, gr. j. M.

Arsenic is an excellent remedy in rheumatic arthritis. It may be administered as follows:—

913. R. Liquoris potassæ arsenitis, f.ʒij  
Potassii iodidi, ʒij  
Syrupi, f.ʒiij. M.

A teaspoonful thrice daily, between meals, in water.



914. R. Vini colchici seminis, f.℥j  
 Potassæ acetatis, 3vj  
 Spiritus ætheris nitrosi,  
 Syrupi, aa f.℥j. M.  
 A teaspoonful thrice daily, in pleurodynia.

Also use a stimulating liniment and keep the parts warm.

915. R. Potassii iodidi, 3ij  
 Vini colchici radicis, f.℥ss  
 Extracti cinchonæ fluidi,  
 Elixir cinchonæ, aa f.℥iss. M.  
 A dessertspoonful thrice daily, in muscular rheumatism.

Cinchona disguises the taste of the iodide of potassium. Quinine is often serviceable alone in those cases in which the joints are not affected, and in which there is pallor and loss of strength.

916. R. Potassii iodidi, 3ij  
 Tincturæ belladonnæ, f.℥iss  
 Syrupi aurantii corticis, f.℥ss  
 Aquæ, q. s. ad. f.℥iiij. M.  
 A teaspoonful thrice daily in muscular rheumatism associated with vesical incontinence.

In case of swelling and stiffness of the joints following acute rheumatism, nothing does so much good as *sulphur baths*. When practicable, send the patient to the sulphur baths of Virginia to get rid of these remnants of the acute attack. Artificial sulphur baths are also useful. When these are not practicable, great benefit will be obtained from the iodide of potassium and compound tincture of guaiacum.

917. R. Potassii iodidi, 3ij  
 Tincturæ guaiaci compositæ, f.℥vj. M.  
 A dessertspoonful thrice daily.

This prescription is a very efficient though not an elegant one. It is very unpleasant to take. There are few who will go on with it for a long enough time to get its full therapeutical effects.

In the treatment of the *sub-acute form of muscular rheumatism*, nitrate of potash is very valuable. This is an old remedy, but the advance of therapeutics has shown no other, in this form of rheumatism, of which our author thinks so highly. It may be conjoined with Dover's powder.

918. R. Potassæ nitratis, gr.xv  
 Pulveris ipecacuanhæ compositi, gr.ijj. M.  
 For one powder, to be taken every fourth hour.



WILLIAM AITKEN, M. D., EDINBURGH.

919. R. Hydrargyri chloridi mitis, gr.v  
 Pulveris jalapæ compositi, ʒij-ʒj  
 Pulveris zingiberis, gr.ij-iv. M.

This powder to be taken in a little milk at the commencement of rheumatic fever. It will secure an abundant secretion from the glandular follicles of the intestinal mucous membrane. The daily evacuations of the bowels is then to be maintained by salines, such as Rochelle or Epsom salts.

920. R. Veratriæ,  
 Extracti opii, āā gr.j. M.

For ten pills. Take two the first day, three the second, four the third, five the fourth, and so on, increasing one pill each day, until the condition of the pulse or the irritation of the mucous membrane compels a diminution.

921. R. Pulveris guaiaci, ʒj  
 Pulveris rhei, ʒij  
 Potassæ bitartratis,  
 Sulphuris sublimati, āā ʒj  
 Pulveris nucis moschatæ, ʒij  
 Mellis, lb.j. M.

Of this compound, two large spoonfuls are to be taken night and morning.

It is used in some large hospitals, both civil and military, in the treatment of old chronic cases. The beneficial effects of guaiacum are obtained in those cases which are unaccompanied by perspiration, and in which the secreting organs are gently excited by this drug. When the diaphoresis is free, it does little good.

THOMAS HAWKES TANNER, M. D., F. L. S., ETC., LONDON.

922. R. Ammoniaë muriatis, ʒijj  
 Liquoris ammoniaë acetatis, f.ʒvj  
 Aquæ camphoræ, q. s. ad. f.ʒvj. M.

A tablespoonful, in water, every four hours.

## RÉSUMÉ OF REMEDIES.

*Aconite* is, according to Dr. REITH (*Edinburgh Medical Journal*), ordinarily given in too large doses in acute rheumatism. He obtains good results in mild cases by its agency alone in small and often-repeated doses ( $\frac{m}{4}$  of the tincture every two hours). In some cases he combines it with the full alkaline or blister treatment.

*Cimicifuga* was brought forward as a remedy in acute rheumatism by Dr. F. N. JOHNSON, of New York. It is less employed in the acute than in the chronic form.

\**Colchicum* relieves the symptoms and shortens their duration, when combined with small doses of calomel, ipecacuanha, alkalies and opium. It is less beneficial, according to Dr. FULLER, in the weak and nervous than in the robust; less in purely fibrous rheumatism than in that complicated by synovial inflammation; less in proportion as the fever



exceeds the articular swelling, and as the urine is less highly charged with the lithates. During its use, its operation must be carefully watched, the bowels kept regulated, and if the lithates disappear from the urine, if the pulse become weak, if faintness, or nausea, or purging supervene, it must be discontinued. The acetous extract or the inspissated juice (gr.j-iss), or the wine (℥xv-xx), may be given twice or thrice daily.

*Ferri Chloridi Tinctura* has been employed by Dr. RUSSELL REYNOLDS, of London, in doses of about ℥xxx every six hours, with the effect of shortening the duration of the disease, and relieving the joint affection.

\**Opium*, in large and repeated doses, is given by Sir D. CORRIGAN, of Dublin. He commences with gr.j every two or three hours, and increases the dose both in frequency and quantity until the patient feels decided relief, when it should be kept up at that dose until the disease is steadily declining. The average quantity required in twenty-four hours is about gr.xij, and even that amount does not affect the head; occasionally it produces diarrhoea, when astringents are required to check it. The tolerance of opium in this disease is remarkable.

*Potassii Acetas* is much employed. The dose usually given is about gr.xxx, every four hours.

\**Potassii Bicarbonas* is a favorite remedy. Dr. A. B. GARROD, of London, gives gr.xxx in solution every four hours, until the joint symptoms and febrile disturbance have completely disappeared. Dr. FULLER, of London, considers that ℥iss is the minimum dose which will suffice to overcome the acid condition of the blood during the first twenty-four or forty-eight hours of treatment, and in sthenic cases ℥ij are often needed. Small doses he regards as useless.

*Potassii Nitras*. Dr. BASHAM, who instituted a series of experiments to ascertain the real value of nitre in acute rheumatism, arrived at the following conclusions:—1. That it is a most valuable remedy in doses of ℥ij-ij in Oiv of barley-water, daily. 2. That it acts by restoring the saline constituents of the blood, and by lessening the excess of fibrine. 3. That there is a certain amount of exemption from cardiac complication, and that cardiac inflammation, when it supervenes, is more amenable to remedies. 4. That the tendency to collapse is much diminished, and the acute or inflammatory symptoms usually give way on the third or fourth day.

*Potassii Bitartras*, in doses of gr.xv-xx, every four hours, given in mint water alone, or in combination with tincture of hyoscyamus (℥xxx-xl), is said to produce good results.

*Quiniae Sulphas*, according to Dr. FULLER, should ordinarily only be used as a restorative when the febrile paroxysm is beginning to abate, and not as a cure during the active stages of the disease.

#### LOCAL APPLICATIONS.

*Baths*, Dr. N. J. BUTLER (*Medical Press*, August 5th, 1868), has found great benefit in acute rheumatism from baths containing valerian. He directs:—

923. R. Valerianæ radicis,	℔b.j
Aquæ,	C.j.

Boil together for a quarter of an hour, strain the liquor and add to an ordinary bath at 98°, the patient remaining in it for twenty or thirty minutes.

For any remaining inflammation about the joints, he applies lin-



seed-meal poultices, prepared with a strong decoction of valerian. In the arthritic form of the disease, he considers valerian of extraordinary efficacy in subduing the pain and inflammation.

Prof. DA COSTA, of Philadelphia, recommends sulphur baths, artificial or natural, for the swelling and stiffness of the joints following acute rheumatism.

\**Blisters.* The blister treatment has been prominently advocated. Dr. HERBERT DAVIES directs armlets, wristlets and even fingerlets of blister-plaster to be applied at the time the inflammation is most acute, linseed-meal poultices being subsequently applied to keep up the serous discharge. He places these blisters entirely around the affected limbs, and in the case of the knees, orders them at least three inches wide, regarding any slight strangury which may arise as of little importance compared with the benefit afforded by the free vesication. This treatment may be aided by a *mild* course of alkali, but he does not regard this as essential, excepting when the rheumatic virus attacks the heart in the first instance and seems to hesitate in fixing itself upon the joints. Dr. RINGER, of London, considers all the alleged good effects may be obtained by the use of "flying blisters." Dr. A. FLEISCHMAN (*Lancet*, May 1st, 1869), looks upon a blister, about two inches square, placed an inch and a half below the left clavicle, as an almost certain preventive of cardiac mischief.

## SCROFULA.

PROFESSOR J. LEWIS SMITH, M. D., NEW YORK.

As scrofula is an essentially hereditary disease, its treatment must commence in infancy. The most enlightened rules of diet and hygiene must be observed. Of the strictly medicinal agents, cod-liver oil is the most useful. It possesses real value in the erythritic form of the diathesis, but none in the torpid form. Iodine, internally, is especially serviceable in glandular hyperplasia. The iodides of iron and starch are the best forms. The latter may be given by dropping one to five drops of the officinal tincture of iodide on a little powdered starch, and giving it in syrup.

For the *swollen glands* the officinal preparations of iodine are too stimulating. The following is better:—

924. R.	Potassii iodidi,	ʒi.	
	Extracti stramonii,	ʒj.	M.

To be rubbed over the gland several times daily.

Or,

925. R.	Liquoris iodinii compositi,		
	Glycerinæ,	aa	ʒss. M.

To be applied three times daily, with thorough friction, till the skin is irritated.



When the glands become actively inflamed, iodine applications should no longer be employed. Poultices should be applied, and resolution hastened.

## DR. F. P. PORCHER, CHARLESTON.

926. R. Decocti stillingiæ, Oj  
Acidi nitrici, gtt.xvj. M.  
Two ounces, thrice daily, in scrofulous and syphilitic cachexia.

A neater formula for administering this popular anti-scrofulous remedy is:—

927. R. Fluidi extracti stillingiæ. f.℥ss  
Syrupus sarsaparillæ, f.℥viij. M.  
A tablespoonful three times a day. This is undoubtedly an efficacious remedy.

## PROFESSOR NEGRIER, OF ANTWERPT.

928. R. Extracti juglandis, ℥ij  
Syrupi simplicis, . āā ℥iv. M.  
Aquæ, āā  
A tablespoonful three times a day. Pronounced to be very efficacious in the scrofula of children.

Professor STEINER, of Prague, speaks of using the walnut leaves externally as a bath.

## DR. JEANNEL, PARIS.

929. R. Ammonii chloridi, ℔b.iv  
Ferri chloridi, ℔b.j  
Eau de cologne, f.℥iij.  
Mix with the water of the bath. A useful bath for scrofulous and chloro-anæmic persons.

## DR BOINET, PARIS.

930. R. Tincturæ iodinii, f.℥ss  
Acidi tannici, gr.iv. M.  
Give five or six drops, once or twice a day, in a small cup of strong coffee, at the end of the meal. This iodized coffee is highly recommended in scrofulous affections. Milk may be iodized in the same manner.

## DR. LABOULBEYE, PARIS.

931. R. Pulveris conii, āā gr.xv  
Extracti conii, q. s. M.  
Mucilaginis,  
Divide into twenty pills. Three or six a day, in strumous engorgements.



## DR. HARDY, PARIS.

932. R. Hydrargyri iodidi rubri,  
Adipis, āā ʒij. M.

A useful ointment in scrofulous skin affections, when there is no ulceration, or when it is superficial. Spread a layer of the ointment on the affected part, which causes a sort of artificial erysipelas, which is nearly as beneficial as a natural erysipelas.

## DR. DUVAL, PARIS.

933. R. Camphoræ,  
Extracti conii,  
Plumbi iodidi, āā ʒj  
Adipis, ʒj. M.

To be rubbed on scrofulous tumors, to favor their resolution.

## PROF. GUÉNEAU DE MUSSY, M. D., PARIS.

934. R. Ammonii carbonatis pulveris, ʒiv  
Camphoræ pulveris, gr.xv  
Adipis, ʒj. M.

To be rubbed on the indolent cervical ganglions of scrofulous patients.

935. R. Magnesii sulphatis, ʒj  
Adipis, ʒj.

Dissolve the salt in a small quantity of water and incorporate with the lard. Useful in scrofulous engorgements. It causes sometimes a pustular eruption, like antimonial ointment.

## RÉSUMÉ OF REMEDIES.

*Ammonii Iodidum* is useful in scrofula attended with glandular enlargement.

*Barii Chloridum* is especially valuable when languid circulation and irritability of the mucous surfaces are present. It is said to be particularly adapted for females with menstrual irregularity. The following formula may be employed :—

936. R. Barii chloridi, gr.x  
Tincturæ ferri chloridi, f.ʒij-iv  
Syrupi aurantii, f.ʒx. M.

One or two tablespoonfuls two or three times a day.

*Bromine* is a useful remedy. The following solution is a good one for external administration :—

937. R. Brominii, m̄x  
Aquæ, f.ʒvij. M.

To commence with, gtt.vj, three or four times daily.

*Calcis Aquæ* is sometimes productive of benefit in long-standing scrofula, when gland after gland is attacked. A tablespoonful should be given in milk three or four times a day.

*Calcis Phosphas Præcipitata* has been recommended as an excellent palliative. In scrofulous ulcers it is given with benefit, in doses of gr.vij-xx daily, taken with the meals, so as to be thoroughly mixed with the



food. In scrofulous diarrhœa, good results are obtained from doses of gr.vj-x daily.

*Ferri et Ammoniac Citras* is a useful remedy, particularly recommended by its mild taste, which adapts it for administration to children.

*Ferri Bromidum* has been recommended, in ointment, as an application to scrofulous swellings:—

938. R.	<i>Ferri-bromidi,</i>		
	<i>Glycerinæ,</i>	āā	1 part
	<i>Adipis,</i>		14 parts. M.

\**Ferri Iodidum*, in the form of the officinal syrup, is a powerful remedy in all forms of scrofula.

\**Iodinium* and its compounds are the most efficient remedies we possess in scrofulous affections. They are employed both externally and internally.

\**Morrhua Oleum* is of the greatest benefit in the scrofulous or tuberculous diathesis, but scrofulous glandular enlargements are generally but slightly influenced by it. After, however, suppuration has taken place, the action of the oil is more manifest. Discharges from scrofulous abscesses often speedily disappear under its use. In scrofulous diseases of the skin, joints and bones, as well as in scrofulous ozæna, otorrhœa and ophthalmia, it is productive of excellent results, when persevered in and accompanied by good hygienic treatment.

*Phosphoricum Acidum Dilutum* has been strongly recommended, in doses of ℥v, gradually increased to ℥xx, or more, in infusion of calumba. Thus given, it may be continued for a long time, without unpleasant effects.

*Potassii Chloras*, in doses of gr.v-xx, four times daily, in pure water, is highly spoken of as a remedy in scrofulous enlargements and ulcerations. As a local application to swellings and enlarged scrofulous joints, the following ointment may be used:—

939. R.	<i>Potassii chloratis,</i>	ʒij	
	<i>Adipis,</i>	ʒj.	M.

*Potassæ Liquor*, in doses of ℥xxx-lx, three times a day, is said to frequently diminish scrofulous tumors, without, however, exerting any influence on the diathesis.

*Potassii Iodidum*, given alone, does not seem to exert much influence in scrofula, but combined with iodine, it increases the activity (and solubility) of the latter remedy. In combination with quinine, it is very useful in scrofulous ophthalmia.

*Sulphur* formerly enjoyed a good reputation in the treatment of scrofula, but it has fallen into disuse. Attention has lately been called to it as a valuable remedy.

940. R.	<i>Sulphuris,</i>	ʒij-iv	
	<i>Syrupi,</i>	f. ʒj	
	<i>Aquæ,</i>	f. ʒvij.	M.

Two tablespoonfuls, once or twice a day, in a tumblerful of milk.

*Zinci Iodidum* has been used externally in enlarged lymphatic glands.

941. R.	<i>Zinci iodidi,</i>	ʒj	
	<i>Adipis,</i>	ʒj.	M.



## TYPHOID FEVER.

PROF. KARL LIEBERMEISTER, M. D., OF TÜBINGEN.

This writer, whose essay on typhoid fever forms part of Ziemssen's *Cyclopædia*, believes it possible that both iodine and calomel may exert a specific influence in cutting short an attack of typhoid fever, if given early. He gave iodide of potassium,  $\mathfrak{Dj}-3j$ , in the twenty-four hours; and when he employed calomel,  $\text{gr.viij}$ , three or four times in the same period. He prefers the latter, and recommends it in the stage of the disease before the ninth day.

His main reliance, however, is *the antipyretic treatment*. This is to be carried out by cold baths and quinine. For adults, the full-length cold bath,  $60^{\circ}$  to  $68^{\circ}$  Fahr., is to be preferred. The duration of the bath should be ten minutes; but if the patient is feeble, seven or five minutes. After the bath, the patient is to be wrapped in a dry sheet, put to bed, and given a glass of wine. In very severe cases, the bath should be repeated every two hours; the average cases require four to eight baths daily. *Contra-indications* to the baths are hemorrhage and perforation of the bowels, weakness of the heart's action, and extreme debility.

*Quinine* comes next as an antipyretic. But it must be given without timidity, and in a definite manner, as follows: from  $\text{gr.xxij}$  to  $\text{gr.xlv}$  *must positively be taken within the space of half an hour, or, at most, an hour*. Six or eight grains every ten minutes is a good rule. If this is boldly done, cinchonism is produced, and a material fall of temperature follows. This dose is repeated once every forty-eight hours; or, if the remission is not marked, once in twenty-four hours, the quantity being increased: When the fever spontaneously manifests a tendency to remissions, the quinine is of little value. This dose should reduce the temperature in the rectum to  $100^{\circ}$  Fahr. Of the two antipyretics mentioned, our author would generally rely on the quinine, if it is properly given.

When the fever is of such obstinacy that additional antipyretic effects are required, he usually gives from eleven to twenty-two grains of powdered digitalis, extended over a period of about thirty-six hours; this should be followed by a full dose of quinine, say  $\text{gr.xl}$ , in one hour, as above directed.

The diarrhœa he controls with opium, in small and repeated doses; meteorism with cold compresses to the abdomen, changed



every half-hour; cold enemata, and frictions with turpentine; hemorrhage from the bowels with opium (gr.ij, in the twenty-four hours), ice to the abdomen, and perfect quiet.

DR. SIREDEY, FRANCE.

This practitioner gives in the first instance, especially in those cases in which the gastro-intestinal symptoms (coated tongue, nausea and diarrhœa) are present, twenty grains of ipecacuanha, with half a grain of tartar emetic, weak wine and water for drink, and beef-tea. The next day, julep of gum, four ounces, with thirty grains of liquid extract of cinchona, taken in divided doses, and an injection containing vinegar or carbolic acid. Several times a day the mouth of the patient is very carefully cleaned with a slice of lemon; morning and evening the body is sponged with a lotion containing vinegar, and is immediately rolled up in wool. This proceeding is peculiarly grateful to the patient. A glass of Seidlitz water is often given in the course of the disease, and as convalescence sets in quinine is ordered in all its forms.

PROF. S. JACCOUD, PARIS.

This able clinical teacher, like most French and English physicians, discredits the cold bath treatment of typhoid. He abjures from the commencement all debilitating measures, such as purging. If needful, a mild laxative of Seidlitz water is given. During each twenty-four hours the patient takes a cordial mixture containing two or three scruples of extract of cinchona bark, two drachms of tincture of cinnamon, an ounce of syrup of orange peel, three ounces of red Bordeaux wine, and an ounce of old brandy, which may be increased, as occasion requires, to three or four ounces. The main constituent of the food is beef-soup, given at least twice daily; about eight ounces of old Bordeaux wine are allowed, and this is taken alternately with the stimulant mixture just mentioned. The ordinary beverage is lemonade, containing one-fourth of red wine. If it appear needful, all this is supplemented at the end of the second week by nutritive enemata twice daily. This mode of alimentation is stated to be well tolerated by the stomach and bowels.

When the patient's temperature reaches 102° Fahr., with a rise in the evening not above 103°, M. JACCOUD directs that twice during the day the whole body should be well sponged with aromatic vine-



gar. If the temperature rises higher, three, or even four, of these applications are made daily. They are continued, more or less frequently, until the close of the fever, and both comfort and benefit are derived from their refreshing and cooling effects.

Should any threatenings of bronchial or pulmonary implication arise, they are met by dry cupping.

#### BOSTON CITY HOSPITAL.

The treatment at this hospital, as practiced under the surveillance of Drs. STEDMAN and DRAPER, is a modification of the bathing process, occupying an intermediate position between the full carrying out of cold-water bathing and the expectant treatment. On entrance, patients are immediately put to bed, and their diet restricted to milk, of which they are expected to drink about two and a half quarts in twenty-four hours. This is perhaps the most important part of the treatment; at first they may object to milk, but on becoming accustomed to it they take it freely. To keep up the strength is the chief aim, and if insufficient nourishment is taken, by giving a small amount at regular intervals the end sought for is accomplished. This diet is continued till the temperature has been normal for several days, when light soups and easily digested farinaceous articles are given; in a few days more, a gradual return to regular though still somewhat restricted diet is allowed.

To lower the temperature sponge-baths, of equal parts of cold water and alcohol, are quickly applied to the surface of the body, which is immediately dried.

In mild cases of diarrhoea nothing is done, two or three loose dejections per diem not being considered harmful; when, however, it becomes excessive it is quickly checked by a pill composed of a grain of opium and a quarter of a grain of sulphate of copper.

In delirium and wakefulness, when the patient can be made to tolerate it, the ice-cap is of great benefit.

The frequent use of a mouth-wash, of equal parts of glycerine and rose-water, is very pleasant to the patient, relieving the foul taste and dryness of the mouth.

In very mild cases twenty drops of dilute nitro-muriatic acid may be given every two hours.

Excepting the medicines above mentioned, no drugs are given, but every attention possible is shown to the comfort, nourishment, sleep and general welfare of the patient.



## THE ANTISEPTIC TREATMENT OF TYPHOID.

Although this method of treatment cannot be considered as established, there has been enough testimony in its favor to commend it to careful consideration. In 1870 Dr. G. WILKES, of England, recommended the administration of *sulphurous acid*, *acidum sulphurosum*, in enteric fever, and in this country Dr. J. WESLEY BOTKIN, of Illinois (*Medical and Surgical Reporter*, May, 1876), and others have testified to its efficacy. The dose is from gtt.x-xx every three or four hours, in lemonade. It can be combined with opium or digitalis. It should be continued until the tongue is perfectly clean.

In the *Practitioner*, September, 1873, Mr. STEPHEN SKINNER reports very excellent results from the *sulpho-carbolate of soda*. He generally commenced with gr.xx every four hours, gradually increasing during the next four days to the full dose of gr.xxx. A larger dose than this may produce cerebral symptoms. When the diarrhœa was excessive, opium was combined with the salt. He also claims that by its early use the premonitory symptoms of the disease are dispersed, and the threatened attack aborts.

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## SMALL-POX—VARIOLA.

W. H. BARLOW, M. D., MANCHESTER, ENGLAND.

Dr. BARLOW has no doubt that the exclusion of light exerts a retarding influence upon the progress of the pustules in their later stages, as that, instead of acuminating in the usual way, they shrink and shrivel about the sixth or seventh day of the eruption. But some recent cases of confluent small-pox have led him to believe that death may have resulted from the exclusion of light, the poison having, by the abstraction of the accustomed stimulus, been prevented from taking its usual course to the skin, just as patients die from the suffusion of the exanthem of scarlatina or measles. This view, which he supports by the history of a number of cases, leads him to the conclusion that the mode of treatment of small-pox by the exclusion of light, although very useful in the lighter cases of unmodified, and in all cases of modi-



field small-pox, should be employed with caution in the graver cases of a confluent character (*Lancet*, July 1, 1871).

### RÉSUMÉ OF REMEDIES.

*Camphor* is advantageously employed, particularly in confluent or malignant small-pox, when the vital power is greatly depressed. It may be given alone or in combination with opium.

*Carbolic Acid* has been administered with marked benefit. It is more useful at an early stage of the disease, although, given afterward, it much modifies the symptoms, and hastens the curative process.

942. R. Acidi carbolicī,  
Acidi aceticī, āā f. ʒj-iss  
Tincturæ opii,  
Spiritus chloroformi, āā f. ʒj  
Aquæ, ad. f. ʒviij. M.

A tablespoonful every four hours, till the fever subsides. After the first dose, the mixture is rather grateful to the patient than otherwise.

\* *Opium* often fails to procure rest in the early stage of small-pox, but in the advanced stage of the disease patients who are wakeful, but otherwise doing well, are benefited by it, given once or twice. But neither it, nor any other anodyne, is to be given when there is copious salivation and mucous expectoration, as the patient may die asphyxiated during sleep, from the secretion accumulated in the air-passages.

*Sodæ Sulphis.* The sulphites are recommended by Professor POLLI, of Milan, as mitigating the febrile action, rendering the confluent and malignant forms benignant, shortening the course of the milder forms, and in all cases accelerating convalescence.

*Sulphuricum Acidum Dilutum.* In confluent small-pox, treatment by dilute sulphuric acid, ℥xv-xx, with gr. j of quinine, every three or four hours, together with stimulants and nutritives, is an excellent one.

### TO PREVENT PITTING.

*Amylum.* A thick mucilage of starch has been used as a local application to prevent pitting, with excellent effect. The entire surface of the body should be first sponged with tepid water.

*Argenti Nitras.* VELPEAU and other French writers recommended the practice of opening each vesicle on the third or fourth day of the eruption, and touching each with a stick of the nitrate scraped to a point. This, however, is a tedious and painful process, not unattended with danger. It has been recommended to wash the face on the fourth or fifth day with a strong solution of the nitrate.

*Calcis Aquæ.* The application of cotton-wool, soaked in a mixture of equal parts of lime-water and olive oil, is said to be an efficacious one.

*Carbolicum Acidum.* Dr. H. YATES reports a case (*Lancet*, January 25th, 1868) treated with success by the following ointment:—

943. R. Acidi carbolicī, f. ʒij  
Adipis, ʒij. M.

The ointment was colored with lampblack, and applied thickly spread on wadding. It was changed every second day, the parts



first washed with soap and warm water, and then with warm water impregnated with carbolic acid.

*Glycerina.* The following application is recommended by J. F. MARSON :—

944. R.	Glycerinæ,	1 part	
	Aquæ rosæ,	2 parts.	M.

Apply (after the pustules have discharged, and the discharge has begun to dry) freely for a few days, until the scabs begin to loosen.

*Hydrargyri Unguentum.* Inunction of mercurial ointment has been advised by Prof. BENNETT and others, but excessive salivation may follow its use. The following ointment is employed in the Children's Hospital, Paris :—

945. R.	Unguenti hydrargyri,	3xxv	
	Ceræ flavæ,	3x	
	Picis nigræ,	3vj.	M.

\**Iodinum.* The tincture, applied once or twice a day, is a remedy which has been long used. Although it does not absolutely prevent pitting, it usually renders the marks and cicatrices less evident.

*Zinci Carbonas.* Prof. BENNETT, of Edinburgh, prefers the following to all other ointments :—

946. R.	Zinci carbonatis,	℥iij	
	Zinci oxidi,	℥j	
	Olei olivæ,	q. s.	M.

The same object is said to be obtained by treating the whole surface thickly with powdered calamine. This application has a very soothing effect.



## VII. DISEASES OF WOMEN.

*The Constitutional Treatment of Diseases of Women—Abortion—Amenorrhœa—Chlorosis—Dysmenorrhœa—Mammary Diseases—Menorrhagia—Ovarian Diseases—Pruritus Vulvæ and of Pregnancy—Uterine Diseases—Vaginismus—Vaginitis (Leucorrhœa)—Vomiting of Pregnancy—Vulvitis.*

### THE CONSTITUTIONAL TREATMENT OF DISEASES OF WOMEN.

HENRY M. FIELD, M. D., OF BOSTON.

This writer lays proper stress upon the necessity of associating constitutional medication with topical applications in the treatment of diseases of women. He suspects that there is a too general tendency, in uterine therapeutics, to trust solely, or nearly so, to the employment of local medication. For instance, in many cases of constipation, complicating uterine disorders, when the nervous system is impaired and the blood poor, to give strychnia or belladonna, with the design of acting specifically upon a single function, and of restoring a condition of permanent health to the bowels, would be almost as short-sighted, and almost as much of a temporary expedient, as it would be to give purgatives. The impoverished blood must first be fortified and enriched before we can look for the normal performance of any important function; and accordingly there are patients, answering the condition described, in whom a course of iron, properly regulated, is the only general therapeutic agent that is necessary.

In some of his cases, he has found *arsenic*, and especially the *arsenate of iron*, very effective in removing constipation, and has sometimes received benefit from this agent when he had failed to make a successful impression with any of the more commonly used remedies.

He has been very much pleased, in cases of female difficulties in which iron has been indicated, with the action of *oxalate of iron*, a preparation first brought to notice by Prof. CRAIG, of the Smithsonian Institute. Being a light and tasteless powder, with nothing



repulsive in its appearance, it can be exhibited in that form to those occasional patients who are unable to swallow a pill. He values it particularly, because it is less liable to cause irritation or derangement of the stomach, or constipation of the bowels, where this common effect of ferruginous preparations is to be avoided, than is any other form of iron with which he is familiar. He has found it to agree with and benefit patients who, from past experience, believed themselves unable to take iron in any form.

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## ABORTION.

DR. ALFRED MEADOWS, OF LONDON.

*Ergot* is exhibited by this author in habitual abortion dependent upon a weakened atonic condition of the uterus (*Practitioner*, September, 1868). He commences in small doses (m<sub>v</sub>-viij extracti ergotæ liquoris, *British Pharmacopœia*), as soon as pregnancy is known to exist, and continues it in increasing doses (m<sub>xx</sub>-xxx), as long as it may seem necessary, certainly till after the period of the accustomed abortion, but with the occasional omission of a week or two. In unsuitable cases, this mode of treatment may be productive of mischief, for, as Dr. MEADOWS remarks, its employment is a matter of extreme delicacy, requiring a very careful discrimination of the cause of previous abortions and of the actual present condition of the uterus.

On the general use of *opium* in abortion, it may be concluded, from the evidence offered, that it is of value in *threatened abortion* arising from accident, from mental causes, or from habit, when it may be given by the mouth, or in a cold starch injection thrown into the bowel, repeated every night, or oftener, according to circumstances; the application of cold, perfect quiet and unstimulating diet being at the same time enforced. When, however, abortion is threatened from fetal disease or imperfection, so that the premature emptying of the uterus is but an effort of nature to get rid of that which she cannot accomplish, opium does harm, by retarding the emptying of the uterus, which must sooner or later take place. After *abortion has taken place*, opium allays excitement, tranquilizes the circulation, and procures sleep.



## RÉSUMÉ OF REMEDIES.

*Arsenic* has been recommended in threatened abortion from irritable uterus, by Mr. HENRY HUNT, of Dartmouth, England.

*Cannabis Indica* has been found useful in impending abortion from congestion or irritability of the uterus. From v-xx drops of the tincture may be given every two or four hours. Drs. CLENDENNING, REYNOLDS, LEVER and CHURCHILL praise its effects.

*Plumbi Acetas* is a valuable adjunct to opium in uterine hemorrhage with threatened abortion.

*Quinine* is thought by many to act as a uterine stimulant, and to be advantageous in this accident.

*Sabina* is useful against the hemorrhage which indicates approaching abortion in women of bad fibre. In these cases, the dried powder of the leaves may be given, in doses of gr.xv-xx thrice daily. In habitual abortion depending upon diminished vitality of the uterine system, savin has also been advised :—

947. R.	<i>Sabinæ,</i>	ʒij-iv	
	<i>Aquæ ferventis,</i>	f.ʒvj.	M.

A tablespoonful thrice daily, taken during the intervals of the menstrual period. This remedy must, however, be employed with caution.

*Tannicum Acidum*, in combination with opium and ipecacuanha, has been strongly advised in threatened abortion.

*Terebinthinæ Oleum* has been favorably reported upon by Dr. FORDYCE BARKER in the treatment of abortion; given as an enema, he found it act as an effective oxytocic, as well as hæmostatic.

*Ice*, pounded and swallowed freely in considerable quantities, is an excellent remedy in abortion.

## AMENORRHŒA.

PROF. R. J. GRAVES, M. D., DUBLIN.

This author observes in his *Clinical Lectures*, that the periodicity of the function of menstruation can still be traced, even in cases where suppression has continued for a great length of time, by means of the menstrual molimina (pains in the loins, thighs, and hypogastric region, flushings, colicky pains of the abdomen, general feeling of *malaise*), which occur at stated intervals; in endeavoring to bring on the discharge, therefore, we must be guided as to the time the attempt should be made, by an observance of the period at which these molimina occur. For a few days before that time, our efforts to produce a determination of blood to the uterus may be judiciously employed; and if they fail, the attempt should be



abandoned until a few days before the next menstrual period. Of course, however, the general constitutional treatment must be constantly persevered in; one of the chief means of bringing back this evacuation being the restoration of health to the natural standard. But all such remedies as pediluvia, stuping of the genitals, leeches to the inside of the thighs, near the labia, aloes and other stimulating purgatives, etc., should be only used at the times spoken of. To use them at any other period, either after the molimina have disappeared, or during the intervals between them, tends, in most cases, still further to derange nature, by determining to the uterus at an unreasonable time, when there is no natural tendency to that organ. Under such circumstances, the very same means fail, and prove injurious, which, applied so as to coincide with the time of the natural effort, would have been successful.

To illustrate these principles by an example: we are consulted in the case of a young woman affected with various hysterical symptoms for several months, and during that period more than usually subject to headache, languor, loss of spirits, diminution of appetite, and irregularity, and usually constipation of bowels; she is pale, and complains of various pains and uneasy sensations, and has not menstruated since the omission of these symptoms. Here it is evident that the constitutional treatment must be strengthening and tonic. The practitioner will therefore recommend regular hours, much gestation in the open air, a nutritive diet, and afterward cold shower-baths; he will regulate the bowels, and afterward prescribe a course of tonic medicines, chalybeates, preparations of bark, strychnia, etc.; he will likewise inquire carefully when the last period happened, and where, and how often since that occurrence menstrual molimina were observed. He thus ascertains when they should again recur, and contents himself with enforcing the constitutional treatment until about six days before the calculated time. Then he lays aside the other medicines, and has recourse to those means which determine to the uterus. Two leeches are applied to the inside of the thigh, near the labium, every second night, until they have been three times applied. The bleeding is encouraged by stuping. On the intermediate days the bowels must be actively moved by aloetic pills; and for three nights before and after the molimina, hot pediluvia, rendered stimulating by mustard seed, may be used. During the same time also, frictions, with stimulating liniments, should be applied to the feet and legs every



morning, and oil of turpentine or tincture of cantharides may be exhibited internally, while the necessity of more active exercise is inculcated. If these means fail, they must for the moment be laid aside, and the constitutional treatment must be again resumed, until the same number of days before the next period, when the list of remedies above spoken of must be again tried, and in few cases indeed shall we find them to fail.

## DR. PINTSCHOVIVS, OF KETZIN.

948. R. Extracti pulsatillæ,  
Folia pulsatillæ, āā q. s. M.  
Divide into pills of three grains each; one three times a day.

## J. M. DA COSTA, M. D., PHILADELPHIA.

949. R. Apiol, gr. iv. M.

In the form of a granule, or "pearl," four times a day, as an emmenagogue. To be taken for three days before the expected period. Apiol is an excellent remedy for amenorrhœa when there is no uterine disease.

## DR. EMIL DILLENBERGER, VIENNA.

Treatment demands the removal of those errors and lesions which lie at the bottom of the malady. If the amenorrhœa consists of some anomaly of the sexual organs, congenital or acquired, and such as cannot be remedied, or in some other irremediable malady, treatment is useless. If menstruation has been already established, the physician must convince himself, by a careful examination, whether or not pregnancy is the cause of the cessation of the periods. Internally are used aloes and myrrh, as follows:—

950. R. Pulveris aloës, gr. lxxviii  
Pulveris myrrhæ, gr. xxxiv.  
Extracti glycyrrhizæ, q. s. M.  
For sixty pills. Two to four pills two to three times a day.

951. R. Pulveris aloës socotrinæ,  
Pulveris myrrhæ, āā gr. xlviii  
Croci sativi, gr. xxxiv  
Extracti glycyrrhizæ, q. s. M.  
For ninety pills. From four to six twice a day.

Or, savine, as follows:—

952. R. Pulveris frondis sabinæ,  
Sacchari albi, āā gr. xxxiv  
Olei menthæ piperitæ, gtt. iij. M.  
Divide into six powders. One to be taken three times a day.



953. R. Olei sabinæ, gtt.vj-xij  
 Sacchari albi, gr.lx. M.  
 Divide into six equal powders. Put in waxed paper. Take one powder three times daily.

954. R. Pulveris frondis sabinæ, gr.lxviij  
 Croci sativi, gr.xxij  
 Olei sabinæ, gtt.viij  
 Extracti gentianæ, q. s. M.  
 For sixty pills. From three to five pills two to three times daily.

Or, direct crocus and borax, as follows:—

955. R. Boracis venalis, gr.xxxiv  
 Croci sativi, gr.xiij  
 Sacchari albi, gr.xxij  
 Olei menthæ piperitæ, gtt.j. M.  
 Divide into six powders. One powder three times a day.

Amenorrhœa is often more certain to be cured by putting an end to serous or bloody discharges from various organs by treating for an improved condition of the blood with good nourishment and a corresponding regimen, with iron, preparations of cinchona, cold washing, etc., than by the employment of emmenagogues without any plan.

For outward application, the following are useful:—*Warm uterine douche; brushing the mouth of the womb with tincture of iodine; leeches to the portio vaginalis uteri, to the labia pudendi, to the inner side of the thighs, or to the perineum; dry cuppings and mustard poultices to the inner sides of the thighs; warm stimulating foot-baths, with mustard, salt, potash, or aqua regia; warm sitz baths, or half-baths; bath at Ems, etc.* In many girls marriage is the first thing that regulates the menstruation.

### RÉSUMÉ OF REMEDIES.

- Aconite* may be employed, in the form of the extract, with advantage in amenorrhœa. Dr. RINGER, of London, recommends it in the sudden suspension of the menses, as from cold.
- Aloe*, in a small enema, containing gr.x, employed at the proper menstrual period, is said to be a very certain emmenagogue. Dr. F. TILT, of London, recommends its internal administration combined with podophyllin. It is frequently combined with myrrh.
- Ammonii Murias*, in the hands of Dr. ANSTIE, in gr.x doses, three times a day, in cases of amenorrhœa, marked rather by general feebleness than by anæmia, has occasionally seemed to conduce directly and considerably toward the cure. But of this as of all other emmenagogues it is pre-eminently true that it is worth absolutely nothing if not exhibited precisely on the fit occasion.



*Ammoniac Aqua* has been successfully employed in the form of injection into the vagina :—

956. R.	Aquæ ammoniæ, Lactis,	f.ʒj Oj.	M.
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To be injected into the vagina daily.

*Apiol* is highly recommended by Dr. JARET (*Bull. Gén. de Thérap.*, August 15th, 1860), as one of the safest and best of emmenagogues, not being even contra-indicated in incipient pregnancy. It is said to be especially adapted for cases attended with local or general nervous symptoms.

*Argenti Nitras*, applied in substance lightly to the os uteri at the time of the expected appearance of the menses has proved successful in obstinate cases.

*Cantharides*. Dr. W. T. DEWEES placed much confidence in the internal use of tincture of cantharides, in doses of gtt.xx, gradually increased to gtt.xxxv or xl. Dr. T. H. TANNER, of London, combined it with bromide of potassium.

*Cimicifuga* has been found an effectual remedy in some cases.

*Ergot* is recommended by Dr. TILT, of London (in doses of gr.v–x, in powder, two or three times a day). He usually gives it in conjunction with other remedies :—

957. R.	Tincturæ ergotæ, Syrupi croci, Decocti aloës compositi,	mxxx f.ʒss f.ʒiiss.	M.
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A teaspoonful three times a day.

\**Ferrum Redactum*, and the other ferruginous preparations, are indispensable in the anemia which constantly accompanies stoppage of the function.

*Galbanum* may frequently be combined with benefit, with the salts of iron.

*Hydrargyri Chloridum Mite* is contra-indicated, if the patient be feeble, and is capable of doing much mischief in unsuitable cases. But Drs. GRAILY HEWITT, ASHWELL and others have found it a decided emmenagogue. Dr. HEWITT directs that on two successive nights, at the time of the expected period, a dose be given of five grains of calomel and six grains of aloes, followed by a Seidlitz powder in the morning.

*Iodine* frictions over the abdomen have been found to give good results.

\**Myrrh*, in combination with iron and aloes, is a standard remedy in amenorrhœa. Dr. TILT, of London, recommends the following so-called "Elixir of Paracelsus" :—

958. R.	Tincturæ myrrhæ, Tincturæ croci, Tincturæ aloes,	f.ʒiv  āā f.ʒiij.	M.
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f.ʒij–iij, twice daily, in a little water.

*Ruta Graveolens*. Rue is frequently prescribed with other emmenagogues.

*Sabina* is considered by Dr. TILT, of London, as the most reliable of a very



uncertain set of remedies. He has never seen any ill effects from its use, though he has given gtt.xx of the oil, twice a day. He orders:—

959. R.	Olei sabinæ,	f.ʒj	
	Spiritus ætheris nitrosi,	f.ʒiij	
	Mucilaginis,	f.ʒj	
	Aquæ,	f.ʒvj.	M.

A teaspoonful every two hours, the bottle being previously shaken. A plaster containing the oil may also be worn over the ovarian region.

*Senega* was first recommended as an emmenagogue by Dr. HARTSHORN, of Philadelphia. He gave a pint of a saturated decoction daily during a fortnight before the expected appearance of the discharge.

*Sinapis*. A hot mustard hip bath is often useful, the patient remaining in it for an hour each time.

*Sodæ Biboras*. Dr. COPLAND recommends the following:—

960. R.	Sodæ biboratis,	ʒss
	Aloes socotrinæ,	
	Pulveris capsici,	āā gr.xx
	Olei lavandulæ,	q. s.

Make eighteen pills. Take two thrice daily.

*Strychnia*. Small doses of the extract of nux vomica, combined with aloes and myrrh are sometimes of service.

*Terebinthinæ Oleum*. Turpentine enemata have been given with success:—

961. R.	Olei terebinthinæ,	f.ʒss	
	Barley water,	Oj.	M.

For one enema, to be given once or twice a day.

## CHLOROSIS.

This name, or that of *green sickness*, is given to the anæmic condition of young girls, associated with disordered menstrual function. The blood has an excess of fibrine, and undergoes some chemical change in its pigments which produces the greenish hue of the skin, whence the disease has its name.

Under the head *Anæmia* (page 323), will be found a full selection of appropriate remedies for that feature of the disease; but a mere routine treatment with iron is neither creditable nor successful. Attention to hygienic conditions, baths, nutritious food, regularity of the bowels, and judicious mental and physical exercise, are first in importance.



## DR. FREDERICK T. ROBERTS.

This writer on *Practice* considers *aloes* the best form of aperient, either the extract, or as *pil. aloes cum myrrhâ*. For the unpleasant sensations in the stomach, bismuth, with hydrocyanic acid, is particularly valuable. For the pain in the side often complained of, a belladonna plaster is usually efficacious. Iron is the great remedy; and it is frequently desirable to change the form of the preparation from time to time.

## PROFESSOR A. P. REID, OF MONTREAL.

This writer (*Canada Medical Record*, 1875) has adopted, with signal success, in uncomplicated chlorosis, the use of *liquor potassæ*, gtt.x-xv, in mucilage, thrice daily. It defibrinizes the blood, and often acts promptly for good where iron is of no avail.

## DR. BRETONNEAU, FRANCE.

962. R.	Ferri redacti,	3ij	
	Quiniæ sulphatis,		
	Zingiberis pulveris,	āā	gr.vij
	Extracti cinchonæ,		
	Extracti,	āā	ʒj
	Aloës socotrinæ,		gr. iij. M.

Divide into fifty pills. One to five a day. These pills have the advantage of not causing constipation.

## DR. GALLARD, PARIS.

963. R.	Ferri carbonatis,		
	Extracti cinchonæ,	āā	ʒijss
	Extracti opii,		gr.xv. M.

Divide into one hundred pills. From two to four a day, principally at meal times.

When there is constipation, this formula ought to be modified as follows:—

964. R.	Ferri carbonatis,	3ij	
	Extracti cinchonæ,		
	Extracti rhei,	āā	ʒiss
	Extracti opii,		gr.xv

Divide into one hundred pills. To be taken as above.

## RÉSUMÉ OF REMEDIES.

*Aloes.* (See above.)

*Bismuthi Subnitras.* Sir H. MARSH states (*Medical Press*, March 6th, 1867) that in chlorosis bismuth is an excellent substitute for iron, when the latter is not well borne.



*Ergot*, in five-grain doses, three or four times a day, is recommended by Dr. CHURCHILL in chlorosis and leucorrhœa.

\**Ferri Iodidum*. In chlorosis, accompanied by much torpor of the system, Dr. ASHWELL has found this salt particularly efficacious, in the following formula:—

965. R.	Ferri iodidi,	gr.xvj	
	Tincturæ calumbæ,	f.℥j	
	Aquæ,	f.℥viij.	M.

Take two tablespoonfuls twice a day.

\**Ferri Mistura Composita*, *Ferri Chloridi Tinctura*, *Ferri et Quiniæ Citras*, *Ferri Sulphas* and *Ferri Vinum* are all excellent ferruginous preparations in chlorosis.

Sir H. MARSH advises (*Medical Press*, March 6th, 1867) the following formulæ:—

966. R.	Liquoris ammoniæ citratis,	f.℥iij	
	Ferri et quiniæ citratis,	gr.vij-xxiv	
	Syrupi,	f.℥j	
	Aquæ,	f.℥iv.	M.

Two tablespoonfuls three times a day.

967. R.	Ferri sulphatis,		
	Aloës,	āā	gr.ij
	Pulveris cinnamomi,		gr.v. M.

For two pills, to be taken at dinner-time, and repeated at night if necessary.

*Sodæ Biboras*. Dr. COPLAND advises the following formula:—

968. R.	Sodæ biboratis,	℥ij	
	Sulphuris præcipitatæ,	℥j	
	Mucilaginis acaciæ,	q. s.	M.

Make twenty-four pills. Three to be taken three times daily.

*Nux Vomica*. Dr. COPLAND has derived benefit in some obstinate cases of chlorosis from the following formula:—

969. R.	Pilulæ aloës c. myrrhâ,	℥ij	
	Extracti nucis vomicæ,	gr.x.	M.

For thirty-six pills. Take one to two night and morning.

*Potassæ Liquor*. (See above.)



## DYSMENORRHŒA.

970. R. Ammonii chloridi purificati,  $\mathfrak{z}\text{ij}$   
 Extracti glycyrrhizæ,  $\mathfrak{z}\text{ss}$   
 Aquæ,  $\text{f.}\mathfrak{z}\text{vj.}$  M.

A dessertspoonful three times a day. Recommended by Dr. O. WARD, of Tennessee, and others, in the painful dysmenorrhœa of the change of life.

DR. EMIL DILLENBERGER, VIENNA.

When there is evident hyperæmia of the womb, several leeches to the portio vaginalis uteri, or to the insides of the thighs, warm soft poultices, or injections of lukewarm water, are very beneficial. When the dysmenorrhœa is of nervous origin, some advantage is derived from the application of warmth, warm baths, mustard poultices, or dry cuppings applied to the loins and thighs, and internally from narcotics, especially opium.

971. R. Pulveris opii,  $\text{gr.}\text{j}$   
 Sacchari albi,  $\mathfrak{z}\text{j}$   
 Olei menthæ piperitæ,  $\text{gtt.}\text{ij.}$  M.  
 Divide into six powders. Take one every two to four hours.

Or,

972. R. Tincturæ opii,  $\mathfrak{m}\text{xxx}$   
 Infusi anthemidis,  $\text{f.}\mathfrak{z}\text{iv}$   
 Aquæ menthæ piperitæ,  $\mathfrak{a}\mathfrak{a}$   $\text{f.}\mathfrak{z}\text{ss.}$  M.  
 Syrupi simplicis,  $\mathfrak{a}\mathfrak{a}$   
 One to two tablespoonfuls every one or two hours.

THEODORE JEWETT, M. D., PROFESSOR OF OBSTETRICS, BOWDOIN MEDICAL COLLEGE.

973. R. Camphoræ,  $\mathfrak{z}\text{ijss}$   
 Extracti belladonnæ,  
 Quinæ sulphatis,  $\mathfrak{a}\mathfrak{a}$   $\mathfrak{z}\text{ss}$   
 Pulveris acaciæ,  $\text{q. s.}$  M.  
 For eighty pills. One to be taken every four hours until relieved.

974. R. Extracti scutellariæ fluidi,  
 Decocti alôes compositi,  $\mathfrak{a}\mathfrak{a}$   $\text{f.}\mathfrak{z}\text{ss.}$  M.  
 A dessertspoonful every two or three hours until relieved.

Dr. C. W. FRISBIE, of East Springfield, N. Y., writes that he used the above formula in his practice many times, and, when the cases had been properly selected, with the most happy results.

DR. A. DESPREZ, SURGEON TO THE LOURCINE HOSPITAL, PARIS.

In dysmenorrhœa, warm water occasions congestion of the uterus,



and the congestion is followed by a return of the menses, and consequently by a marked alleviation.

Injections of warm water act like the cataplasm and warm lotions, which are so usefully employed in inflammation of the integument.

The injections of warm water are practiced at the hospital with irrigators, of which the jet is not very strong. The water used should be of 95° to 104° Fah., and it is renewed two, four or six times in the day. This therapeutic means is convenient and not repugnant to the patient.

#### DR. LISFRANC, PARIS.

975. R. Vini opii, gtt.x-xx  
 Camphoræ, gr.ij-ivss  
 Decocti althæa, f.3ijss  
 Yolk of egg, 3ijss. M.

For an enema, to be given nearly cold, at bedtime, to relieve the pain of menstruation. Hot fomentations on the abdomen.

976. R. Assafoetidæ, 3j  
 Vini opii, ℥xv  
 Extracti valerianæ, 3ss  
 Decocti althæa, f.3ijss  
 Yolk of egg, 3v. M.

An enema, in hysterical dysmenorrhœa.

#### RÉSUMÉ OF REMEDIES.

*Apiol*, in the hands of Dr. TILT, of London, acts like a charm when given in doses of four grains, so soon as the pains of dysmenorrhœa begin. It is of little use, however, when the dysmenorrhœa depends upon disease of the uterus.

\**Belladonna*. In neuralgic dysmenorrhœa, Dr. ANSTIE, of London, recommends (*British Medical Journal*, August 22d, 1868) the extract, as a palliative, in doses of gr.℥. He obtained still better results from the hypodermic injection of the sulphate of atropia, in doses of gr.  $\frac{1}{20}$  -  $\frac{1}{60}$ , twice a day, and continued for several weeks, at once reducing the quantity when marked dryness of the throat appeared. In constitutions very intolerant of belladonna in any form, the acetate of morphia may be advantageously substituted for the atropia. A belladonna plaster to the sacrum is often of benefit; so also is a suppository of extract of belladonna.

*Camphor*. Dr. DEWEES regards camphor as a very certain and uniform palliative, in doses of gr.x, every one or two hours, until relief be obtained. Or the following injection may be given:—

977. R. Camphoræ, 3ss-j  
 Tincturæ opii, f.3j  
 Mucilaginis, M.

For an enema.

Camphor liniment, or ointment, well rubbed into the loins, also affords relief.



*Cannabis Indica* is sometimes a useful remedy.

*Colchicum* is useful in dysmenorrhœa connected with a tendency to gout or rheumatism. It should be given with blue pill every other night; flannel at the same time should be worn, and exposure to cold avoided.

*Ferri Chloridi Tinctura* and *Ferri Vinum* are both excellent preparations in atonic dysmenorrhœa. Sir CHARLES LOCOCK recommends the following formula :—

978. R.	Vini ferri,		
	Spiritus ætheris sulphuri		
	compositi,	āā	f.3j.
	Misturæ camphoræ,		f.3vj. M.

Take one-fourth part every six hours.

*Guaiacum* is often productive of the greatest benefit. The *tinctura guaiaci ammoniata* is especially serviceable.

\**Opium*. Opiates are often best exhibited in the form of enemata. Dr. E. J. TILT, of London, recommends a hot linseed-meal poultice, sprinkled with laudanum, to be applied to the hypogastrium. A single hypodermic injection of morphia, when the pain is habitually severe, will often be sufficient at each menstrual period.

*Potassii Nitras* has been found highly serviceable, in doses of gr.xv-xxx, well diluted with barley water.

*Sinapis*. Dr. ASHWELL recommends the mustard hip-bath, to be repeated three or four times a day, the patient remaining in it for from thirty to sixty minutes, or even, if the pain be very severe, until faintness is induced.

*Sodæ Biboras* is of advantage combined with extract of belladonna.

*Stramonium* is said to be of marked benefit in the severe forms of the disease.

*Taraxacum*. A half teaspoonful of the extract in a little warm milk, every night, proves useful, by keeping up a healthy action of the liver and skin.

*Veratria*. Mild veratria ointment, rubbed over the hypogastric region twice a day, greatly relieves the pain.

## MAMMARY DISEASES.

In *acute mammitis*, a number of observers have reported striking success with the *poke root* :—

979. R.	Fluidi extracti phytolacæ,	q. s.
	Twenty drops every three hours.	

Others have seen benefit from—

980. R.	Tincturæ belladonnæ,		
	Tincturæ digitalis,	āā	f.3j. .M
	Ten drops every three or four hours.		



In *chronic mammitis*, Prof. HUNTER MCGUIRE, M. D., of Richmond, Va., condemns (*Virginia Medical Monthly*, September, 1875) the severe and needless practice of slitting up the sinuses, or of injecting them with stimulating fluids. Nearly every case can be cured by *proper bandaging* with adhesive plaster.

Cut the plaster into strips from four to six inches in length, and from a half to three-quarters of an inch in width, according to the size of the breast. After warming the plaster, apply one end of a strip to the circumference of the gland, near the axilla. Take another strip of the same length and width, and fasten its end to the inner circumference of the breast, near the external bone. The ends of the two strips of plaster thus applied are held in place by an assistant, while the surgeon takes the free extremities of the strips, and drawing them toward each other, that is, drawing the breast from its circumference toward its centre, crosses the strips and fastens them. Two more strips are then applied just below, and lapping slightly the first two pieces. Continue in this way till the whole breast is covered (somewhat upon the same principle and manner that we use strips in an indolent sore on the leg), leaving the nipple and fistulous orifices uncovered. A piece of moistened lint is placed over the sinuses, to catch the pus which escapes.

DR. ASHBURTON THOMPSON, LONDON.

Speaking of mammitis, this writer (*Medical Times and Gazette*, January, 1875) mentions two modes of treatment, the administration of tincture of aconite, and the total abstention from fluids during the necessary number of days. By giving minim doses of aconite every hour, he had succeeded in cutting short inflammations of the breast which there was no doubt would otherwise have run on to suppuration very frequently; indeed, in three cases out of four. In cases of still-birth, he had hitherto found abstention from fluids sufficient in every case to avoid every kind of mammary disturbance. Ice was allowed in moderate quantity, and no other fluid, from the time of delivery until the fourth or fifth day, when the breasts generally return to their normal state of quiescence. The deprivation of fluid caused but little distress.

MR. ROBERT DRUITT, LONDON.

981. R. Acidi tannici, gr. iv  
Aquæ destillatæ, f3vj. M.

This solution, as well as ointments and glycerites of tannin, is useful in *cracked nipples*. It should be applied on lint covered with oiled silk.



## DR. BLACQUIÈRES, FRANCE.

982. R. Extracti krameriaë, gr.xv  
 Olei amygdalæ dulcis, f.3ss  
 Butyri coccoë, 3ijss. M.

To be applied to *cracked nipples* when the child has ceased to nurse to be removed before nursing.

983. R. Zinci oxidi, aa gr.iss  
 Sodæ boratis, aa f.3ss  
 Olei amygdalæ dulcis, Div  
 Butyri coccoë, gtt.v.  
 Olei bergamii, M.

A useful liniment for cracked and chapped nipples.

## GERMAN HOSPITAL, PHILADELPHIA.

984. R. Extracti opii, gr.iss  
 Liquoris calcis, f.3v  
 Olei amygdalæ dulcis, f.3ij.

Dissolve the extract of opium in the lime-water, add the oil, and shake vigorously.

## MR. ERASMUS WILSON, LONDON,

The mucilage of acacia is a useful application to sore nipples. It should be penciled on the part immediately after suckling, and the nipple then be protected by a leaden shield. Or the following powder may be applied:—

985. R. Acaciæ gummi pulveris, aa 3ss. M.  
 Sodæ biboratis,

## DR. HUEBNER, DRESDEN, SAXONY.

The treatment pursued by this obstetrician in all lesions of the nipple and areola consists in the constant application, day and night, of lukewarm compresses, wet with lead-water; fissures, ulcers, and excoriations being touched once or twice a day with balsam of Peru, and the breast well supported. The child should nurse less often than usual, and, where possible, through a nipple-shield. He recommends the warm lead-water in mastitis also, to be followed by strapping of the breast and free incision, while sup-puration is promoted by poulticing.



## MENORRHAGIA.

DR. RACIBORSKI, PARIS.

986. R. Ferri redacti, 3j  
 Extracti nucis vomicæ, gr. xij  
 Mucilaginis acaciæ, q. s. M.

Divide into sixty pills. From two to four morning and evening, for chlorotic young girls whose menstruation is too profuse.

DR. EMIL DILLENBERGER, VIENNA.

The treatment of the Vienna school comprises rest, horizontal position with the pelvis elevated, low diet, and cooling drinks, such as:—

987. R. Acidi tartarici, gr. x-xxij  
 Syrupi aurantii floris, f. 3vj  
 Aquæ, f. 3xv. M.

For drinking.

988. R. Tamarindi, 3j  
 Fiat decoctum libræ unius.  
 (Acidi sulphurici aromatici, f. 3j-ij)  
 Syrupi rubri, f. 3ss-j. M.

For drinking.

989. R. Acidi sulphurici aromatici, f. 3ij  
 Syrupi rubri, f. 3j. M.

One to two teaspoonfuls in a glass of water as a drink.

These directions and prescriptions, together with pure air, only moderately warmed, in the room, are some of the most important points which alone will often restrain rather free bleeding.

When there is *passive hemorrhage*, use cold dressings, injections of cold water, or the following astringents:—

990. R. Aluminis, 3ij-ivss  
 Aquæ, f. 3xv. M.

For vaginal injections.

991. R. Acidi tannici, 3ss-iv  
 Aquæ, f. 3xv. M.

For vaginal injections.

992. R. Zinci sulphatis, gr. x-xxxiv  
 Aquæ, Oj. M.

For vaginal injections.

993. R. Catechu, 3ij  
 Aquæ, f. 3xv. M.

For vaginal injections.



994. R. Extracti krameriaë, ʒij  
Aquaë, f.ʒxv. M.  
For vaginal injections.

Plugging the vagina is also an effectual remedy.

Among internal remedies, those that have generally shown themselves the best are:—

995. R. Ferrii chloridi, gr.xvj  
Tincturæ opii, gtt x  
Syrupi tulatani, f.ʒij  
Aquaë, f.ʒvj. M.

A tablespoonful every one to two hours.

996. R. Pulveris ergotæ, āā gr.xxxiv  
Sacchari albi, gtt.j. M.  
Olei cinnamomi,

Divide into six doses. One powder every five minutes.

997. R. Extracti ergotæ fluidi, ℥xx-xl  
Syrupi acaciæ, f.ʒij  
Syrupi auranti floris, f.ʒss  
Aquaë, f.ʒiij. M.

One tablespoonful four times a day.

998. R. Extracti krameriaë, gr.vj-xx  
Aluminis, āā gr.xxiij  
Sacchari albi, gtt.j. M.  
Olei cinnamomi,

Divide into six powders. One powder every two to five hours.

999. R. Aluminis, gr.xxxij  
Tincturæ cinnamomi, f.ʒij  
Syrupi auranti corticis, f.ʒss  
Aquaë cinnamomi, f.ʒiv. M.

One tablespoonful hourly.

*Hemorrhage during pregnancy* requires complete repose of body and mind, horizontal posture and acid drinks. The employment of other remedies depends on the answer to the question whether the physician can stay the bleeding without pregnancy being interrupted. In the negative case, cold applications on the abdomen, or injections, introduction of bits of ice into the vagina, or plugging the vagina, are proceedings to be recommended.

Bleeding which arises from the bursting of varicose vessels in the vagina requires to be treated with cold compression, plugging, ligature or transfixion of the bleeding vessels. The bleeding which occurs in mole pregnancies is stayed by the delivery of the moles.



T. HAWKES TANNER, M. D., F. L. S., LONDON.

1000. R. *Acidi gallici*, gr. xv-xxv  
*Acidi sulphurici aromatici*, ℥ xv-xx  
*Tincturæ cinnamomi*, f. ʒij  
*Aquæ destillatæ*, q. s. ad. f. ʒss. M.

For one dose. Mix with two or three tablespoonfuls of water, and take every few hours, in profuse menorrhagia, until the bleeding ceases.

PROFESSOR T. GAILLARD THOMAS, NEW YORK.

This author says that in case of menorrhagia the patient should be kept perfectly quiet upon her back; cloths wrung out of cold water should be laid over the uterus, vulva and thighs; cold acidulated drinks should be given freely; and the injection of all warm fluids strictly interdicted. In addition, the apartments should be kept cool, the nervous system quieted by opium or an appropriate substitute, and all conversation prohibited. In mild cases this may suffice, but in severe ones it will not. Then the speculum should be introduced, a sponge-tent passed into the cervix, and the vagina filled with a tampon. This will rarely fail. But in certain cases, as, for instance, those of cancer of the neck, the tent will not be admissible. Under these circumstances, a soft sponge or wad of cotton should be saturated with a solution of tersulphate of iron, laid upon the cervix, and the tampon placed against it, or a small linen bag may be filled with powdered alum, placed in contact with the cervix, and held in place by a tampon; or two drachms of tannin may be left free against the part. To these means almost all cases will temporarily yield, more especially if the use of the tent is admissible.

EDWARD JOHN TILT, M. D., M. R. C. P., LONDON.

1001. R. *Olei terebinthinæ*, f. ʒss  
*Tincturæ capsici*, f. ʒss  
*Tincturæ ergotæ*, f. ʒj  
*Tincturæ lavendulæ compositæ*, f. ʒij. M.

In cases of uterine hemorrhage, give from half a drachm to a drachm of this mixture in milk, after shaking the bottle. In severe flooding after parturition, from half an ounce to an ounce may be given in plenty of milk, with good results.

PROFESSOR ELLERSLIE WALLACE, PHILADELPHIA,

1002. R. *Aloës*, gr. v  
*Olei tanaceti*, gtt. xl  
*Cantharidis*, gr. vij  
*Ferri lactatis*, Div. M.

Make a mass; divide into twenty-eight pills. One morning, noon, evening and night, as an emmenagogue.



J. G. SWAYNE, M. D., PHYSICIAN ACCOUCHEUR TO THE BRISTOL GENERAL HOSPITAL, ETC., ENGLAND.

The following formulæ are of service in cases of *accidental hemorrhage during pregnancy* :—

1003. R.	Acidi sulphurici diluti,	f.3j	
	Tincturæ opii,	℥xl	
	Infusi rosæ compositi,	f.3vj.	M.
Two tablespoonfuls every other hour.			

1004. R.	Plumbi acetatis,	gr.xviii	
	Acidi acetici,	℥xx	
	Morphiæ acetatis,	gr.j	
	Aquæ destillatæ,	f.3vj.	M.
Two tablespoonfuls every hour.			

The woman is also, of course, to be kept in a recumbent position, and cold compresses applied to the abdomen and vulva. Cold drinks and cold water enemata may be administered. By the employment of these expedients, the bleeding may be checked and the patient carried in safety to the close of her pregnancy.

PROFESSOR FORDYCE BARKER, M. D., NEW YORK.

In *uterine hemorrhage at the change of life*, this teacher adopts the following treatment :—

Where the uterus is found to be increased in size and weight, he directs the patient to use, for a week previous to the return of the expected period, suppositories made after the following formula :—

1005. R.	Extracti ergotæ aquæ (Squibb's),	ʒij	
	Cacao butter,	ʒi.	M.
Divide into suppositories No. xij.			

One of these suppositories is to be introduced into the rectum morning, noon and night; and they must be carried far up into the bowel, and the patient must keep the recumbent posture for at least one hour. These are to be continued for a week previous to menstruation, and also throughout its duration. Ergot in this manner, rather than by the hypodermic syringe, avoids the risk of troublesome abscesses in the tegumentary walls of the abdomen.

Now, if the hemorrhage is prolonged, although not excessive, he infers that there is some lesion affecting the lining membrane of the uterus, and then resorts to another plan of treatment, which it is rarely found necessary to repeat in any case beyond the second menstrual return. In those cases, he introduces into the cavity of



the uterus cylinders of iodoform made according to the following formula :—

1006. R.	Iodoformi,	3ijss	
	Gum tragacanth,	gr. xv	
	Mucilaginis,	q. s.	M.

Divide into cylinders No. x, each one and one-half inches in length.

One of these cylinders is to be carried completely into the cavity of the uterus, and a pledget of cotton introduced against the cervix, to retain it in position. Introduce one of these cylinders daily for five or six days previous to menstruation. The only objection to them is the excessively disagreeable odor which attends their use.

### RÉSUMÉ OF REMEDIES.

*Alumen* often proves successful in controlling the hemorrhage. Dr. E. J. TILT, of London, says that in uterine hemorrhage alum, in solution with sulphuric acid, is the first remedy to try.

*Argenti Oxidum* is an efficient remedy in menorrhagia. More than three grains daily should not be given.

*Arseniosum Acidum*. Fowler's solution is said to check uterine hemorrhage, given at first in the dose of  $\mathfrak{m}\text{x}$ –xx, and repeated in  $\mathfrak{m}\text{x}$  doses every twenty minutes until the discharge ceases. This remedy must not, of course, be pushed too far.

\**Cannabis Indica*. Dr. CHURCHILL, of Dublin, obtains from the tincture of Indian hemp, in doses of gtt.v–x, thrice daily, remarkable success in the treatment of menorrhagia and uterine hemorrhage.

*Cimicifuga*. Dr. RINGER, of London, says this remedy will certainly arrest menorrhagia, though he regards it as inferior in this affection to the bromide of potassium.

*Digitalis* is useful in menorrhagia and other forms of uterine hemorrhage, unconnected with organic disease. Dr. E. J. TILT, of London, employs the following :—

1007. R.	Tincturæ digitalis,	f.3ij	
	Acidi hydrocyanici diluti,	$\mathfrak{m}\text{xxx}$	
	Morphiæ acetatis,	gr. j	
	Aquæ,	ad. f.3vj.	M.

A dessertspoonful every two or three hours.

*Ergota*, though not equally beneficial in all cases, is a useful remedy in menorrhagia. Dr. WARING-CURRAN states (*Medical Press*, November 17th, 1869) that it proves most useful in that form of menorrhagia which occurs in women of a scrofulous habit, who suffer from constipated debility, and in whom leucorrhœa exists as a consequence of previous hemorrhage. He gives freshly prepared infusion of ergot and borax in menorrhagia from obstructive cardiac disease, in that associated with a diseased portal system, in that consequent upon a scorbutic state of the system, and in genuine menorrhagia (*i. e.*, an increase of the catamenia, continuing for a lengthened period, and returning before the proper period, without organic lesion). He finds it has little or no effect in menorrhagia dependent upon ulcera-



tion of the os, the presence of polypous growths or other tumors, or in that arising from retro-flexion of the uterus. Ergotin, subcutaneously, should not be neglected.

*Ferri Chloridi Tinctura* may frequently be given with advantage in atonic cases.

\**Gallicum Acidum* was much employed by the late Sir J. Y. SIMPSON, of Edinburgh, in atonic menorrhagia. He gave it in doses of gr.x, xv or xx daily, and continued its use during the intervals, as well as the period of discharge. Dr. E. J. TILT, of London, while testifying to its value as an astringent in many cases, finds that it often fails when the hemorrhage depends upon organic lesions.

*Ipecacuanha*, in full emetic doses, is often productive of the best results. Under the use of gr.xx of the powdered root, in the evening, followed by an acidulated draught in the morning, the discharge frequently ceases in twenty-four hours; if a relapse occurs, a repetition of the emetic seldom fails to make the cure permanent. Dr. TYLER SMITH thus explains its action in these cases: by its emetic power, it excites contraction of the abdominal muscles and compression of the uterus, which may, in turn, re-excite some amount of uterine reflex action; but beyond this, it appears to have a special action upon the uterus, increasing its contractile power beyond what could be imagined to occur from the merely secondary effects of vomiting. *Ipecacuanha* thus appears to influence the medulla oblongata and the lower medulla spinalis. This double action upon the extremities of the spinal centre is very extraordinary.

*Krameria* is particularly useful in menorrhagia occurring about the usual time of the cessation of the menses. Dr. DEWEES employed the following formula:—

1008. R.	Extracti krameriæ,	ʒij	
	Pulveris rhei,	ʒss	
	Syrupi,	q. s.	M.

Divide into forty pills, and order two thrice daily.

*Magnesia Sulphas* is recommended by Dr. GRAILY HEWITT, of London, who found a mixture containing very small doses of this salt, with a little dilute sulphuric acid and syrup, very useful during the time of the catamenial flow.

*Matico*. The pounded leaves, made into a paste and introduced into the vagina, are said to arrest the hemorrhage after the failure of a strong solution of nitrate of silver.

*Plumbi Acetas* often succeeds in severe cases, when given in enema:—

1009. R.	Plumbi acetatis,	gr.xv-xx	
	Tincturæ opii,	ʒxl	
	Mucilaginis,	f.ʒij.	M.

For an enema.

In mild cases, the internal administration of sugar of lead and opium is usually successful.

\**Potassii Bromidum* is a favorite remedy of Dr. RINGER, of London, who lays down the following rules for its administration in menorrhagia:—If the loss of blood occurs only at the natural menstrual period, it will be sufficient to begin the medicine about a week before the discharge is expected, and when this has for a time ceased, it should be discontinued till the next attack is about to begin. If, on the other hand



the loss of blood occurs every fortnight, or oftener, it should be given without any intermission, till the disease is well controlled; and when the discharge has been brought to its right period and amount, a few doses should be given for a short time before each monthly period. It has less control over uterine hemorrhage due to tumors of the uterus than ergot and other remedies.

\**Tannicum Acidum*, alone or combined with a small portion of dilute nitric acid, has often the happiest effects.

*Zinci Sulphas*, in doses of gr. j-ij, in pills, thrice daily, is often useful in the atonic forms of menorrhagia.

#### VAGINAL INJECTIONS.

*Alumen*. Dr. E. J. TILT, of London, orders, in purely atonic case of menorrhagia, the following vaginal injection:—

1010. R. *Aluminis*, 3j  
*Decocti quercus albæ*, Oj. M.

This injection is inadmissible if inflammatory symptoms be present.

*Ferri Chloridi Tinctura*, with equal parts of water, has been injected with success.

*Galla*. Decoction of galls (3j $\frac{1}{4}$ , aquæ Oj), daily injected into the vagina, warm or cold, according to the feelings of the patient, is occasionally useful.

*Quercus Alba*. The decoction, with or without alum (3j, ad. decocti Oj), is a serviceable and safe vaginal injection.

## OVARIAN DISEASE.

PROFESSOR J. MATTHEWS DUNCAN, EDINBURGH.

On the subject of *acute and chronic ovaritis*, this author states there is no specific treatment. In chronic cases, two, three or four leeches may be applied to the cervix uteri, through a speculum, after the monthly periods. Croton oil liniment, or antimonial liniment, or a blister, may be applied to the inguinal canal adjacent to the affected gland. The bowels should be regulated by gentle saline laxatives. Leucorrhœa, if present, should not be actively treated, but by mild injections only. Mercury and iodide of potassium may be given in small doses.

J. WARING-CURRAN, L. K. AND Q. C. P. I., ETC.

For *ovarian neuralgia*:—

1011. R. *Ammoniæ muriatis*, 3ij  
*Tincturæ aconiti*, f. 3ij  
*Syrupi aurantii corticis*, f. 3viij. M.

A teaspoonful thrice daily in the treatment of *ovarian neuralgia*.



Our author states that this combination has almost a magical influence in many cases. He reports (*Medical Press and Circular*, August 19th, 1868), six cases in which various sedatives and anodynes had been tried in vain. In all he found that before the above mixture was finished by the patient the pains had entirely ceased.

Dr. T. J. NEWMAN, of Chicago, confirms the usefulness of this mixture, and records (in the *Chicago Medical Examiner*, for November, 1869), three cases of neuralgia of the ovaries treated by it with success, after the failure of other remedies.

In the same painful complaint, Dr. R. BARTHOLOW has obtained excellent results from the following recipe:—

1012. R.	Extracti belladonnæ,	gr. iv	
	Extracti stramonii,	gr. v	
	Extracti hyoscyami,	gr. v	
	Quiniæ sulphatis,	ʒij.	M.

Make twenty pills. One three times a day in ovarian neuralgia and neuralgic dysmenorrhœa.

### RÉSUMÉ OF REMEDIES.

*Ammoniac Murias* is often efficient in ovarian neuralgia.

*Antimonii et Potassii Tartras*. Counter-irritation by means of tartar emetic ointment is of service in subacute ovaritis. Dr. GRAILY HEWITT, of London, advises, together with this counter-irritation over the seat of the disease, the following internal treatment:—

1013. R.	Pulveris opii,	gr. v	
	Extracti cannabis indicæ,		
	Camphoræ,	ʒā	gr. x. M.

Divide into ten pills; one to be taken night and morning.

*Atropia*, hypodermically,  $\frac{1}{120}$ — $\frac{1}{80}$  grain in ovarian neuralgia.

*Camphoræ* is very serviceable in ovarian pain.

*Hydrargyri Unguentum*. Dr. E. J. TILT, of London, recommends in subacute ovaritis—

1014. R.	Unguenti hydrargyri,	ʒij	
	Extracti belladonnæ,	ʒj	
	Ceræ,	ʒij	
	Adipis,	ʒj.	M.

Warm water enemata, and gentle aperients (castor oil), should accompany the treatment.

\**Linum*. Large, light and soft linseed-meal poultices afford often the greatest relief in ovarian inflammation.

\**Opium*. Pessaries of opium (gr. ij) frequently give the utmost relief in ovarian pain and irritation.



\**Terebinthinæ Oleum*. Hot turpentine epithems applied over the seat of the disease are very useful.

*Blisters* over the ovarian region are sometimes of service in subacute ovaritis.

*Enema*. Warm water enemas (simple or medicated), retained as long as possible, are of great benefit.

*Ice*, applied in a bag to the painful spot, is said by Dr. E. J. TILT to relieve severe pain in acute ovaritis.

*Leeches* may often be applied to the groin or inside the thigh with good effect.

## PRURITUS VULVÆ.

PROFESSOR T. GAILLARD THOMAS, NEW YORK.

This teacher believes that pruritus vulvæ is usually excited by an irritating leucorrhœal discharge in the lower part of the vagina (*American Journal of Obstetrics*, February, 1873). Cervical endometritis and abnormal growths, seat worms, the pediculus pubis and saccharine urine are other causes.

For the first-mentioned variety, Dr. A. R. JACKSON, of Chicago, has used, with gratifying results, the following:—

1015.	R.	Zinci sulpho-carbolatis,	℥ss	
		Aquæ,	f.℥viij.	M.

Wash the parts twice daily, leaving it to dry upon the surface.

PROFESSOR CARL SCHROEDER, ERLANGEN.

Of actual curative agents, this writer (*Ziemssen's Cyclopædia*) can only speak with confidence of—

1016.	R.	Acidi carbolici,	gtt.iv-l	
		Glycerinæ,		
		Aquæ,	āā f.℥ss.	M.

Apply locally.

He says of this combination:—"I am sure that whoever has once tried this will never return to any of the other remedies which have been recommended."

A. C. GARRATT, M. D., BOSTON.

1017.	R.	Acidi hydrocyanici (Scheele's),	f.℥ij	
		Liquoris plumbi subacetatis,	f.℥iv	
		Aquæ,	f.℥iij.	M.

As a local application.



Dr. HORATIO R. STORER states that he has long given great comfort in this affection by Oldham's ointment of hydrocyanic acid and acetate of lead, with cocoa butter.

Dr. G. S. JONES, of Boston, has employed with benefit, in pruritus of the vulva, the following:—

1018. R.	Sodæ biboratis,	℥j	
	Camphoræ,	℥j	
	Olei gaultheriæ,	gtt. xxx	
	Aquæ bullientis,	℥ij.	M.

When cool, pass through a cloth. To be used cold, as a wash for the parts, and as an injection into the vagina.

## RÉSUMÉ OF REMEDIES.

### LOCAL APPLICATIONS.

*Ammonii Murias*, in the following ointment, is useful:—

1019. R.	Ammonii muriatis,	℥j	
	Pulveris helleboris albæ,	℥ss	
	Adipis,	℥ij.	M.

*Ammoniæ Aquæ* sometimes succeeds in obstinate cases like a charm, when injected in diluted form into the vagina:—

1020. R.	Ammoniæ aquæ,	f. ℥ss-j	
	Aquæ,	Oss.	M.

To be freely injected into the vagina.

*Argenti Nitras*. Dr. GRAILY HEWITT, of London, states that in obstinate cases a rather strong cauterization of the os uteri, with the solid nitrate, will sometimes succeed when other measures fail.

*Calcis Aqua*, applied warm, together with perfect rest and light clothing, will sometimes afford the desired relief.

*Camphor*, in powder, with starch, dusted over the parts, sometimes removes the distressing symptoms.

\**Chloral*, by Prof. J. R. BLACK, of Ohio:—

1021. R.	Chloral hydratis,	℥ij	
	Aquæ,	℥iv.	M.

Apply locally.

\**Chloroformum*. Dr. GRAILY HEWITT, of London, obtains the greatest benefit from the application of—

1022. R.	Chloroformi,	f. ℥ss	
	Olei amygdalæ expressi,	f. ℥ij.	M.

*Oreosotum*. A weak solution is sometimes useful.

*Hydrargyri Oxidi Rubri Unguentum*, well diluted with cod-liver oil, is frequently an effectual application.



\**Hydrargyri Chloridum Corrosivum*. The favorite formula of ERASMUS WILSON, of London, is the following:—

1023.	R.	Hydrargyri chloridi corrosivi,	gr.v-x	
		Spiritus rosmarini,		
		Alcoholis,	āā	f.3j
		Misturæ amygdalæ amaræ,		f.3vj. M.

Another formula, said to be effective, is given by Dr. MILTON (*Medical Press*, March 11th, 1868):—

1024.	R.	Hydrargyri chloridi corrosivi,	gr.iv	
		Bismuthi oxidi,	gr.xxx	
		Acidi hydrocyanici diluti,	℥xxx	
		Aquæ calcis,	ad. f.3viij.	M.

Apply warm, twice or thrice daily.

*Hydrargyri Unguentum* is advised locally by Dr. RINGER, of London.

*Hydrocyanicum Acidum Dilutum* is recommended, largely diluted, by Dr. WEST, of London. It must not be applied too freely nor over abraded surfaces:—

1025.	R.	Acidi hydrocyanici diluti,	℥x-xl	
		Glycerinæ,	f.3j.	M.

*Iodinium*. The tincture, locally applied, often affords relief.

*Morphia*, subcutaneously, deserves trial in severe cases.

\**Olivæ Oleum*, spread over the parts with a feather, sometimes allays the pruritus.

*Plumbi Subacetatis Liquor Dilutus*. The following soothing application is a useful one:—

1026.	R.	Liquoris plumbi subacetatis diluti,	f.3j	
		Tincturæ hyoscyami,	f.3ij	
		Misturæ camphoræ,	f.3viij.	M.

To be applied tepid. Rest and an antiphlogistic regimen are at the same time to be ordered.

*Sodii Boras*. The following formula is advised by Dr. WEST, of London:—

1027.	R.	Sodii boratis,	3iv	
		Morphiæ muriatis,	gr.viij	
		Aquæ rosæ,	f.3x.	M.

*Sodæ Chlorinatæ Liquor*, diluted, has been employed with success:—

1028.	R.	Liquoris sodæ chlorinatæ,	f.3vj	
		Aquæ,	f.3xij.	M.

*Sodii Sulphis* has been favorably reported on.

1029.	R.	Sodii sulphitis,	3j	
		Aquæ,	f.3iiij	
		Glycerini,	f.3j.	M.



## UTERINE DISEASES.

*Chronic Uterine Catarrh (chronic endometritis).* Much can sometimes be done by bringing the habits in accordance with hygienic rules, the administration of tonics, especially ferruginous ones, and the occasional use of mild cathartics, as castor oil and the saline mineral waters. Baths, cold, sponge, sea or salt, are required.

Of specific internal remedies, the only one deserving much attention is *ergot*. This should be administered regularly, in the form of the fresh powder, the fluid extract, or by hypodermic injection (gr.ij of the aqueous extract every other day). Undoubtedly, in many instances, this drug sets up a new uterine action, which, with other favoring circumstances, alters and arrests the mucous discharge.

As is remarked, however, by Dr. W. PLAYFAIR, of King's College, London, in many long-standing cases of uterine catarrh it is vain to expect a permanent cure by any means which do not act directly on the seat of the disease, which is the lining membrane of the cavity of the uterus and cervical canal beyond the external os; accompanied, of course, with secondary morbid states of the body of the uterus and cervix, such as hypertrophy, congestion, etc. Rest, applications to the exterior of the cervix, and general treatment will unquestionably cause a temporary improvement, but on a recurrence to the old habits of life all the old symptoms return. There are serious objections to intra-uterine injections, unless the os is *first dilated with laminaria tents*, as they are apt to bring on severe uterine colics. By means of fine probes of whalebone or flexible metal, round which a thin film of fine cotton-wool is wrapped, alterative applications can readily be made to the interior of the uterus, without pain or danger. In the very numerous cases in which this plan of treatment has been carried out, in no single instance has anything but the greatest benefit accrued. It is no doubt advisable to select the cases judiciously, and where there is much uterine tenderness intra-uterine treatment should be postponed until this has been diminished by rest, leeching, etc.; but with proper precautions the treatment is perfectly safe. A concentrated solution of *carbolic acid*, *eighty parts to twenty of water*, is used, and it acts so well that for a long time nothing else



has been employed. After the first application the discharge is sometimes increased, but after the second or third it is generally greatly diminished, and a single application is often sufficient to cure superficial erosions of the cervix. As a rule, there is no difficulty in passing the probes, as in true uterine catarrh the os is invariably patulous.

DR. F. A. GALLOIS, PARIS.

1030. R.	Morphiæ muriatis,	℥j-ij
	Sacchari,	gr. iv
	Ceræ albæ,	℥j
	Butyri cacao,	℥ss.

Melt over a slow fire the cocoa butter and the wax, incorporate the sugar and morphia, carefully triturated together, and when the mixture is on the point of forming a mass run it into four horns of paper, and allow it to cool.

These vaginal suppositories are useful in painful affections of the uterus, rectum and bladder.

DR. ROBERTS, MANCHESTER, ENGLAND.

In *ulcerations of the os*, this writer, while commending the carbolic application, does not consider the strong acid necessary in superficial ulceration. A mixture of one part of the strong acid with two of olive oil seems to answer all ordinary purposes; but in cases of very deep ulceration the use of the strong acid may be called for. In such cases, Dr. ROBERTS desires the acid to be liquefied by the addition of a very small quantity of water. This has not been found always to answer the purpose, but it has been noted that the addition of a *few grains of camphor* will dissolve the acid, and will, moreover, prevent it again becoming solidified, even at a freezing temperature. The application of the carbolic oil to the os uteri is best effected by soaking a little cotton-wool in the liquid, securing it by a string, and introducing it through a speculum, the string being left depending out of the vagina, and the patient being directed to pull it away on the second day. This procedure is repeated in ordinary cases about twice every week. If it be desired to apply the acid to the cervical canal, it may readily be done by passing in a gum-elastic catheter smeared with the carbolic oil.



## INTRA-UTERINE MEDICATION.

PROFESSOR CARL SCHROEDER, OF ERLANGEN.

As cautions in the use of intra-uterine injections, this author mentions:—

1. Tenderness or inflammation of the uterus or its appendages.
2. There must be a free exit of the injected fluid; hence it is better first to dilate, in every case, the uterine neck.
3. Only a small quantity of fluid must be injected.
4. The fluid should be slightly warmed, and slowly injected.
5. Where there is flexion of the uterus it is advisable to draw the fluid back into the syringe after a minute or two.

Of substances used, probably the solutions of alum and iodine are the most useful, as these do not form precipitates with the albumen of the discharge, as iron, acetate of lead, nitrate of silver, etc.

Dr. ROBERT BARNES remarks (*British Medical Journal*, January, 1873), that a most precious way of applying almost any medicinal agent to the interior of the uterus is in the form of an ointment or *pasma*. They can be introduced by means of a hollow sound, with a piston working in its centre, the "ointment positor." Where grease is objectionable, glycerine, cocoa butter, cosmoline, vaseline, etc., may be used. Thus bromine, iodine, mercury, etc., can be safely applied.

Dr. W. W. WILKENS recommends (*Transactions of the New Hampshire State Medical Society*, 1875) the following as admirably adapted to *chronic uterine catarrh*:—

1031. R. Acidi carbolici,  
Aquæ,

$\mathfrak{z}\text{i}$   
f.  $\mathfrak{z}\text{ss}$

Dissolve and add:—

Glycerinæ,

f.  $\mathfrak{z}\text{ss}$ . M.

This mixture will not cauterize or destroy tissue, but acts as a healthy stimulus. None or little pain follows its use. It should be applied to the entire mucous membrane of the womb about once in ten days.

## THE MEDICAL TREATMENT OF UTERINE TUMORS.

*Fibroid Tumors.* From numerous sources, lately, the assertion has been made that interstitial fibroid tumor of the uterus can be



treated hypodermically by the aqueous solution of *ergot* with eminently more satisfactory results than by any other mode of treatment, or by operation.

- |          |                       |       |    |
|----------|-----------------------|-------|----|
| 1032. R. | Ergotinæ (Bonjean's), | ʒj    |    |
|          | Glycerinæ,            | f.ʒj  |    |
|          | Aquæ destillatæ,      | f.ʒj. | M. |
- Inject twelve drops daily, hypodermically.

Dr. LOMBE ATTHILL (of Dublin) prefers a solution of the extractum ergotæ liquidum (B. Ph.), one part to two of water, of which he injects fifteen to twenty minims.

*Uterine Polypi.* The *chloride of calcium*, once popular as a remedy for *goitre*, has recently been advocated by various Irish physicians as efficient in bringing about the expulsion of uterine polypi (*Irish Hospital Gazette*, September 15th, 1874). The formula is:—

- |          |                           |       |         |
|----------|---------------------------|-------|---------|
| 1033. R. | Liquoris calcii chloridi, | f.ʒiv |         |
|          | Tinctura ferri chloridi,  |       |         |
|          | Spiritûs chloroformi,     | aa    | f.ʒj    |
|          | Tincturæ aurantii,        |       | f.ʒij   |
|          | Infusi calumbæ,           |       | f.ʒvij. |
|          |                           |       | M.      |
- Two tablespoonfuls three times a day.

These polypi can, also, in many instances, be expelled by the administration of *ergot*, either by the mouth or subcutaneously. In the hemorrhage which accompanies these growths, perhaps the best injection is of solution of subsulphate of iron, as follows:—

- |          |                              |        |    |
|----------|------------------------------|--------|----|
| 1034. R. | Liquoris ferri subsulphatis, | f.ʒss  |    |
|          | Aquæ,                        | f.ʒij. | M. |
- To be used for intra-uterine injections.

This strength cannot be exceeded with safety, and frequently one-half the amount of the salt will be sufficient.

Prof. JONES, of the Medical College of Georgia, and other Southern physicians, have claimed that the free administration of *muriate of ammonia* brings about the discussion of fibroid tumors of the womb, hypertrophic contractions of the uterine walls, and allied troubles. It may be alternated with *ergot*.

In *cockscomb granulations* of the os, the best application is strong cider vinegar or crude acetic acid. It may be poured into a speculum and allowed to cover the diseased portion for about five minutes. This should be repeated every other day. Nitrate of



silver is liable to excite severe hemorrhages if applied to this form of erosion.

In simple ulcerations of the os much good often follows the use of *iodo-tannin*:—

1035. R. Iodinii, ʒi  
Acidi tannici, f.ʒij  
Aquæ, Oj. M.  
Filter and evaporate to ʒiv. To be applied to the ulcerated surface.

Or, for extemporaneous use :—

1036. R. Tincturæ iodinii,  
Tincturæ gallæ, ʒss f.ʒss. M.  
For local use.

#### UTERINE ULCERATION.

DR. SAINT GERMAIN, PARIS.

1037. R. Acidi tannici, ʒij  
Glycerinæ, f.ʒij. M.

Prepare little bags of gauze about an inch and a half long and a little larger than the thumb, fill them with dry linseed meal, and after having immersed them in the above solution introduce them into the vagina for the relief of the pain accompanying ulceration of the uterine neck. One is allowed to remain in place for several days and then remove; after free injection of the vagina, a new sachet is introduced.

When the pain is very acute, the above solution may be replaced by the following :—

1038. R. Extracti belladonnæ, ʒij  
Glycerinæ, ʒij. M.  
To be applied as above.

#### CANCER OF THE UTERUS.

1039. R. Acidi sulphurici, f.ʒijss  
Aquæ destillatæ, f.ʒxv. M.

The patient being recumbent on the back, with the pelvis elevated, a glass speculum is introduced and a teaspoonful of this acid solution is introduced in contact with the cancerous ulceration, and retained there for five or six minutes, after which it is replaced by simple water. This operation is to be repeated twice a day. It is alleged that under the influence of this treatment the hemorrhages are more rare and less grave, and that the progress of the cancer is retarded.







## VAGINITIS—VAGINAL CATARRH—LEUCORRHŒA.

DR. T. FINCH, OF ILLINOIS.

1045. R. Potassæ chloratis, ℥iv  
 Potassæ permanganatis, gr. x  
 Aquæ, Oj. M.

Inject a teacupful morning and evening, in acute vaginitis. Warm sitz-baths and saline laxatives are important accessories (*Chicago Medical Examiner*, December, 1874).

DR. J. N. DEMARQUAY, PARIS.

1046. R. Acidi tannici, gr. xv—xxx  
 Glycerinæ, f. ℥ijss. M.

Tampons of wadding immersed in this solution are introduced into the vagina after the acute symptoms have been relieved by baths, emollient injections and repose.

M. MAISSONNEUVE, PARIS.

1047. R. Ferri sulphatis, ℥ijss  
 Aquæ, Oj. M.

This solution is advised in injections in vaginitis. After each injection a certain quantity of starch is to be introduced into the vagina.

DR. EDMOND LANGLEBERT, PARIS.

1048. R. Tincturæ iodinii, f. ℥v—x  
 Aquæ destillatæ, Oij  
 Potassii iodidi, q. s. to prevent the precipita-  
 tion of the iodine. M.

A useful injection in vaginitis after the acute stage has passed. Ulceration, if any exist, should be lightly touched with nitrate of silver. If the vaginal discharge be offensive, the following injection is useful:—

1049. R. Liquoris sodæ chlorinatæ, f. ℥vj  
 Aquæ destillatæ, Oiss. M.

DR. A. A. BOINET, PARIS.

1050. R. Tincturæ iodinii, f. ℥ijj  
 Acidi tannici, ℥j  
 Potassii iodidi, ℥ss. M.

This solution is employed to paint the vagina, in acute or chronic vaginitis, and the uterine neck, in engorgement and ulceration. The proportion of the tincture of iodine is to be lessened according to the character of the inflamed tissues and the effect that it is desired to produce.



## PROFESSOR SCANZONI, VIENNA.

The author recommends, in vaginitis, the employment of a tampon rolled in powdered alum. If the sensibility be too acute, the alum is to be mixed with two parts of sugar. The tampon should not remain in the vagina longer than twelve hours, and ought to be introduced every two or three days. When it is withdrawn, the vagina should be cleansed by warm-water injections, and a bath taken. Some physicians replace the alum tampon by a sachet of gauze filled with an astringent powder, such as oak bark.

## PROF. A. NELATON, PARIS.

1051. R. Cupri sulphatis, gr.xv  
Aquæ, f.ʒvj. M.  
To be used in injections in chronic leucorrhœa.

## DR. GUIPON, PARIS.

1052. R. Ferri sulphatis, ʒij  
Ferri subcarbonatis, ʒiij  
Cinchonæ pulveris,  
Canellæ pulveris,  
Ergotinæ, āā ʒj. M.

One or two pinches to be administered before the two principal meals, in idiopathic leucorrhœa. Its usage is to be suspended on the approach of the menstrual epochs. Prolonged vaginal injections, morning and evening, with cold water and vinegar. Tonic regimen.

1053. R. Acidi tannici, gr.ix  
Ceræ albæ, ʒvj  
Adipis, ʒiv. M.  
Melt by a slow heat, and cool in a mould.

This is a useful vaginal suppository in leucorrhœa.

## RÉSUMÉ OF REMEDIES.

*Alumen*, in doses of gr.v-viij thrice daily, in combination with pilulæ aloës or with nitre (gr.x), is productive of good in some obstinate cases of leucorrhœa.

*Argenti Nitras* is useful in uterine leucorrhœa :—

1054. R. Argenti nitratis,  
Opī, āā gr.v  
Pulveris rhei,  
Extracti hyoscyami, āā ʒj. M.  
Divide into twenty pills; one thrice daily.

*Bismuthi Subnitratis*, applied once a day in powder, on a small piece of charpie, by means of a speculum, to the whole of the vaginal mucous membrane, is an effectual remedy in some cases.



*Cantharides*. The use of the tincture, once so highly praised by Dr. DEWEES and others, has fallen into comparative disuse. It was given in gtt. xx thrice daily, in a demulcent draught, the dose being subsequently increased to gtt.xl-l, until it produced slight strangury, when it was diminished or the medicine discontinued. The average period of cure was about four months.

*Copaiba* is highly spoken of by a number of writers, in doses of ℥xv thrice daily.

*Cubebs* have been employed with success.

*Ergot*, in doses of gr.v thrice daily, often gives good results, especially if a blister be applied to the sacrum.

*Gallæ Pulvis*, in doses of gr.x-xx, in decoction of tormentilla, daily, is given with great benefit at the Lock Hospital, London.

*Hæmatoxyli Lignum*, in decoction, has been employed with advantage.

*Juniperus* frequently exerts a beneficial influence.

*Krameria*. The extract, in doses of gr.xx daily, often arrests the discharge and improves the tone of the system.

*Potassii Nitræs*. Dr. DEWEES prescribed the following with success in some obstinate cases :—

1055. R.	Potassii nitratis,	3v	
	Aluminis,	3ijss.	M.

Divide into thirty powders ; one thrice daily.

*Tannicum Acidum*, in doses of gr.ij-ij twice or thrice daily, in aqueous solution, combined with a small portion of dilute nitric acid, has been found an efficacious remedy.

*Terebinthinæ Oleum* is recommended, in small and repeated doses, by Dr. PEREIRA, in chronic cases, unattended by inflammatory symptoms.

#### VAGINAL INJECTIONS.

\**Alumen*. Dr. TYLER SMITH, of London, has found the following injection very serviceable :—

1056. R.	Aluminis,	3ss	
	Acidi tannici,	3j-ij	
	Aquæ,	Oij.	M.

One-half to be used at night, and the other half in the morning.

Oak-bark decoction also makes a good vehicle :—

1057. R.	Aluminis,	3j	
	Decocti quercus albæ,	Oj.	M.

Dr. E. J. TILT, of London, remarks that he has repeatedly known the prolonged use of alum injections produce an irritable, sub-inflammatory state of the cervix uteri ; he advises, therefore, when astringent injections are long continued, to use those of alum, zinc and sugar of lead, on alternate days.

*Ammonii Murias* has occasionally been used in vaginal injections :—

1058. R.	Ammonii muriatis,	3j-iv	
	Aquæ,	Oj.	M.



*Argenti Nitras*, in solution, has been advised as a vaginal injection :—

1059. R.	Argenti nitratis,	gr.ijj	
	Aquæ destillatæ,	f.3j.	M.

*Calcis Aqua*. The vaginal injection of a weak solution of lime-water sometimes effects a cure after the failure of other remedies.

*Catechu*. The infusion, injected once or twice a day, often greatly lessens the discharge.

*Cupri Sulphas*. The following injection, given after previously washing out the vagina with soap and water, is of service :—

1060. R.	Cupri sulphatis,	gr.xx-xxx	
	Aquæ tepidæ,	Oss.	M.

To be used thrice daily.

*Hydrargyri Chloridum Corrosivum*. Dr. DEWEES employed the following solution as a vaginal injection :—

1061. R.	Hydrargyri chloridi corrosivi,	gr.ij	
	Aquæ,	f.3ij.	M.

To be used only in chronic cases ; given at first only once a day, then several times a day, until heat and irritation occur, when lotions of acetate of lead will effect the cure.

*Matico*. The infusion has been injected with benefit.

*Plumbi Acetas*. The following are useful vaginal injections :—

1062. R.	Plumbi acetatis,	gr.vj	
	Aquæ,	f.3j.	M.

1063. R.	Liquoris plumbi subacetatis,	f.3ij	
	Aquæ,	Oj.	M.

*Potassii Chloras*. The following vaginal injection has been employed with success :—

1064. R.	Potassii chloratis,	3j	
	Aquæ destillatæ,	f.3viiij.	M.

*Granati Radicis Cortex*. The decoction of the root-bark (3ij, aquæ Oij, boiled to Oj) is a useful vaginal injection, combined with alum :—

1065. R.	Aluminis,	3j	
	Decocti granati radicis cortici,	Oj.	M.

*Quercus Alba*. The decoction, with or without alum, is a safe and effective vaginal injection.

*Sodii Boras*. Dr. GRAILY HEWITT, of London, advises, when the discharge is acrid, frequent ablutions of the external parts with a borax lotion, to prevent irritation.

*Tormentilla*. The decoction (3ij, aquæ Oiss, boiled to Oj) is an excellent vehicle for alum, in vaginal injection.

\**Zinci Acetas*. This salt forms a useful vaginal injection, in the strength of



gr.ij-iv to aquæ f.℥j. The following was a favorite formula with Sir ASTLEY COOPER :—

1066. R.	Zinci sulphatis,	gr.vj	
	Liquoris plumbi subacetatis,	℥xxx	
	Aquæ,	f.℥iv.	M.

By this formula decomposition takes place, the acetate of zinc resulting.

*Zinci Oxidum.* The following vaginal injection has been given with success :—

1067. R.	Zinci oxidi,	℥ss	
	Aquæ,	Oij.	M.

The sulphate of zinc, gr.j to water f.℥j, is also excellent.

## VOMITING OF PREGNANCY.

DR. ALBERT EULENBERG, BERLIN.

1068. R.	Tincturæ iodinii,	℥xv	
	Alcoholis,	f.℥iij.	M.

Give three drops several times a day, in a tablespoonful of an aromatic infusion.

1069. R.	Tincturæ iodinii,	gtt.x	
	Aquæ destillatæ,	f.℥iij	
	Syrupi aurantii corticis,	f.℥j.	M.

A teaspoonful, or even a tablespoonful.

Other approved prescriptions are :—

1070. R.	Bismuthi subnitratis,	℥iij	
	Acidi carbolicæ,	gr.iv	
	Mucilaginis acaciæ,	f.℥j	
	Aquæ menthæ piperitæ,	f.℥iij.	M.

A tablespoonful three or four times a day.

1071. R.	Atropiæ sulphatis,	gr.ij	
	Aquæ destillatæ,	f.℥j.	M.

Two drops in water, before meals.

1072. R.	Cerii oxalatis,	gr.x	
	Bismuthi subnitratis,	gr.xxx.	M.

Make ten powders. One five or six times a day.



## VULVITIS.

T. GAILLARD THOMAS, M. D., PROFESSOR COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

In the treatment of *purulent vulvitis*, if the inflammatory action run high, the woman should be kept in bed and upon a low diet. Saline cathartics should be administered. Cleanliness is to be carefully enjoined, and cooling emollient applications applied and retained upon the part. The vulva should be freely bathed three or four times a day with warm water, and a warm poultice of powdered linseed, slippery elm, or grated potato, with the addition of lead and opium, directed.

So soon as the acute symptoms have subsided, the following lotion should be kept in contact with the parts, by dossils of lint soaked in it and placed between the labia.

1073.	R.	Tincturæ opii,	f.℥ij	
		Plumbi acetatis,	℥j	
		Aquæ,	℥j.	M.

At a still later period the diseased surface should be painted over several times a day with—

1074.	R.	Liquoris ferri sulphatis,	āā	f.℥ss.	M.
		Glycerinæ,			

If this treatment be not effectual in eradicating the trouble, a solution of nitrate of silver (gr.x to aquæ f.℥j) should be applied, by means of a brush, every other day, and the part kept constantly powdered with lycopodium, bismuth, or starch, until the recovery is completed.



## VIII. DISEASES OF CHILDREN.

*General Remarks on Infantile Therapeutics—Anæmia—Bronchitis, Acute and Chronic, and Laryngitis—Cholera Infantum—Convulsions—Coryza—Croup, Membranous and Spasmodic—Diarrhæa—Diphtheria—Hydrocephalus, Acute and Chronic—Incontinence of Urine—Pertussis—Pneumonia, Infantile—Rachitis—Scarlatina—Stomatitis—Tonsillitis—Worms.*

### INFANTILE THERAPEUTICS.

EDWARD JOHN WARING, M. D., LONDON.

In childhood (as in old age) the same doses of medicines are not generally as well borne as in youth and manhood, and much nicety is sometimes necessary in regulating the dose. Several exceptions, however, present themselves; thus, in childhood (and in old age) much larger quantities of mercury are necessary to induce salivation than in manhood; indeed, Dr. CLARKE states that, in a practice of twenty years, he never saw a child truly salivated; an observation corroborated by the experience of others. Prof. GRAVES ascribes the difficulty of inducing salivation in children and in old persons to the undeveloped state of the salivary glands in the former, and to their atrophied state in the latter. On the other hand, in infancy and childhood, *opium* in every form is a remedy that requires the utmost caution in its administration. Two and a half drops of laudanum have destroyed an infant three days old; three drops, a strong child of fourteen months; and four drops, a child of a few weeks old (CHRISTISON). In infancy and childhood, *blisters* allowed to remain long in contact with the skin are apt to induce ulceration and gangrene; and *leeches*, on account of the thinness of the skin, and the vascularity of the subjacent tissues, draw more blood, and, consequently, make a more decided impression on the system in an infant, than a proportionate number would produce in an adult.

[Prof. H. C. WOOD, of Philadelphia, questions the great susceptibility of infants to opium. He has used that drug with great freedom in infantile therapeutics, and without injury.]



## ANÆMIA.

DR. BOSSU, PARIS.

1075. R. Ferri redacti, 3ss  
 Pulveris canellæ,  
 Pulveris gentianæ,  
 Magnesiae, aa gr. xv. M.

Divide into twenty powders ; one morning and evening, for children, in cases of atony of the digestive tube.

## RÉSUMÉ OF REMEDIES.

\**Calcii Phosphas* is strongly recommended by Dr. RINGER in the anæmia of young, rapidly-growing persons, in the dose of one or two grains, several times a day.

\**Ferri et Ammonii Citras* is useful, especially in irritable states of the stomach, when it may be given with infusion of calumba.

## BRONCHITIS AND LARYNGITIS.

J. M. JULIAN, M. D., HOBOKEN, N. J.

In the suffocative capillary bronchitis of children, says this writer (*Medical Record*, October 2d, 1871), the indications are to get rid of the excessive mucous secretion as speedily as possible. For twenty-five years he has used for this purpose, with eminent success, the following:—

1076. R. Zinci sulphatis, gr. xij  
 Tincturæ sanguinariæ, f. ʒij  
 Aquæ, f. ʒiss. M.

A teaspoonful in mild cases to a child one year old, every three hours ; in severe cases, triple the dose, and give it every half-hour or hour, regardless of vomiting.

PROF. JOHANN STEINER, M. D., OF PRAGUE.

In chronic bronchitis and allied conditions, where there is debility and much irritation from the cough, this author has seen very great relief from the following prescription:—

1077. R. Quiniæ sulphatis, gr. ij  
 Pulveris foliæ digitalis, gr. ʒj  
 Extracti opii, gr. ʒj  
 Pulveris sacchari albi, ad. ʒj. M.

Divide into twelve powders ; one every three or four hours.



PROFESSOR J. LEWIS SMITH, M. D., NEW YORK.

Chronic laryngitis dependent on syphilis or tuberculosis requires specific treatment; local measures have but little effect. The chronic laryngitis occurring in children in general good health, sometimes resulting from an acute attack, is an obstinate affection. The patient should be warmly clad, and every effort made to guard against taking cold. The most satisfactory treatment is the application of tincture of iodine upon the neck, directly over the larynx, and in some cases of a solution of nitrate of silver, ten or twenty grains to the ounce, to the fauces, so that, if possible, some of it may enter the larynx. Little benefit is derived from stimulating expectorants. The following recipe has proved beneficial in a number of cases:—

1078. R. Extracti cubebæ fluidi, ℥xl-f.ʒj  
 Syrupi simplicis, f.ʒijss. M.  
 A teaspoonful three or four times daily.

J. M. DA COSTA, M. D., PHILADELPHIA.

1079. R. Ammoniz carbonatis, gr.xvj  
 Spiritûs ætheris compositi, f.ʒiss  
 Syrupi tolutani,   
 Aquæ, āā f.ʒj. M.  
 A teaspoonful every two hours; a stimulating expectorant for a child a year old, affected with bronchitis of two weeks' standing.

Counter-irritation to be applied to the chest by means of weak mustard plasters (one part of mustard to four of Indian meal). Also, if the child be much debilitated, fifteen drops of brandy every four hours. When the child is seen frequently, so that the effect may be watched, there is no better treatment than relieving the lung mechanically by emetics. Hoffman's anodyne, in the above recipe, acts as a diaphoretic and quieting agent, which latter influence would not be obtained from sweet spirits of nitre.

1080. R. Syrupi ipecacuanhæ, f.ʒss  
 Liquoris potassæ citratis, f.ʒijss  
 Misturæ glycyrrhizæ compositæ, f.ʒj. M.  
 A teaspoonful every three hours; for a child two years of age. Afterward, when the disease passes into second stage, to be changed to—  
 1081. R. Syrupi scillæ, f.ʒij  
 Tincturæ opii camphoratæ, f.ʒij. M.  
 Thirty drops four times a day.



1082. R. Syrupi ipecacuanhæ, f.℥j.  
 A teaspoonful every ten minutes until vomiting is produced; to be repeated every second day. For ordinary acute bronchitis in a child a year old. Together with :—

1083. R. Ammonia carbonatis, ℥ss  
 Syrupi senegæ, f.℥ss  
 Syrupi tolutani, f.℥j  
 Aquæ, f.℥ijss. M.  
 A teaspoonful thrice daily.

For Résumé of Remedies in Bronchitis, see *Diseases of the Respiratory Organs*, pp. 136, 146.

## CHOLERA INFANTUM.

DR. IRVING C. ROSSE, U. S. A.

In a communication to the Surgeon-General's Office, this writer states that the *bromide of potassium* is almost a specific in this affection, careful attention to hygiene being observed. The following formula is used :—

1084. R. Potassii bromidi, ℥j-ij  
 Mucilaginis acaciæ, f.℥ij. M.

From ten drops to a teaspoonful, regulated according to circumstances. Occasionally, a drachm of *krameria* is added to this recipe.

The food is prepared by pounding a small quantity of fresh beef in a linen cloth, and expressing the juice, to which a very small seasoning of cayenne pepper is added. Minute quantities of brandy are administered when indicated.

PROF. N. S. DAVIS, M. D., CHICAGO.

In threatening cases this physician recommends—

1085. R. Acidi carbolici crystalisati, gr. iij  
 Glycerinæ, f.℥ss  
 Tincturæ opii camphoræ, f.℥j  
 Aquæ, f.℥iss. M.

Give twenty drops every half-hour, till the vomiting ceases; then every four hours.

1086. R. Hydrargyri chloridi mitis, gr. iv  
 Pulveris opii, gr. j  
 Sacchari albi, gr. xxx. M.

Make eight powders. Give one every eight hours.



If the vomiting ceases, but the discharge continues, and the child is fretful and emaciates, then—

1087. R.	Olei terebinthinæ,	f.ʒij	
	Olei gualtheriæ,	gtt.xx	
	Tincturæ opii,	f.ʒij	
	Pulveris acaciæ,		
	Sacchari albi,	āā	ʒiv
	Aquæ,		f.ʒiij. M.

From fifteen to thirty drops, every three or four hours.

J. LEWIS SMITH, M. D., PROFESSOR IN BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

Prompt measures are required in cholera infantum, as the child rapidly sinks under the prostrating influence of the frequent watery discharges. Some evacuant is indicated at the outset, if there be any irritating material in the stomach or bowels, causing or keeping up the trouble. Small doses of ipecacuanha (from two to five grains) are often beneficial. When, however, the stomach is irritable and the alvine discharges fail to carry off the intestinal contents, calomel is the great remedy. As it is slow in its operation, castor oil may be administered after it with benefit, or its operation may be aided by a simple enema. It should not be given to the extent of more than one or two doses.

If there be no indigestible substance in the intestines, purgatives are contra-indicated, as they are then hurtful. The continuance of the diarrhoea for several hours affords a pretty sure evidence of the removal of any irritating matter which may have been present, and hence no purgative is required. The objects of the treatment then should be to diminish the frequency of the evacuations, and improve their character. No time should be lost. Opium in some form is the chief reliance.

If laudanum be used, it may be administered in one-drop doses, every two or three hours, to a child one year old. Its effects should be watched. If the evacuations are partially checked, and there are signs of stupor, stop the opiate, or at least give it less frequently.

Astringents, and often alkalies, may be employed as adjuvants to the opium. The opiates and alkali may be employed in the following combination :—

1088. R.	Tincturæ opii,	gtt.xij	
	Misturæ cretæ,	f.ʒiss.	M.

One teaspoonful every two or three hours to an infant one year old.



To this mixture an astringent may be added, as tincture of catechu or kino. It should be borne in mind, however, that astringents are less tolerated by an irritable stomach than opium or chalk. When they are vomited, therefore, they should be discontinued, even in cases in which they would doubtless be serviceable if the stomach were retentive.

By means of the opiate and astringents, if they be retained, the passages are rendered, in a few hours, less frequent, and the stools more consistent.

In cases in which calomel is employed our author does not recommend its use in larger doses than one-fourth of a grain, morning and evening (together with the astringent and opiate), to a child of one year.

Dr. S. also advises small pieces of ice in the mouth at the beginning of the attack, to combat the irritability of the stomach, and the application of mustard to the epigastrium.

In most cases Bourbon whisky or brandy, the best of the alcoholic stimulants, are required. They should be used from an early period of the disease, both for the purpose of sustaining the vital powers and of diminishing the gastric irritability.

The diet should be simple, but nutritious, and taken often, but little at a time. If the child be at the breast, it should be confined to the mother's milk. If it be weaned, cold barley or rice water, with whisky or brandy, should be given in the commencement of the attack; afterward, milk or broth may be employed in addition.

1089. R.	Creasoti,	gtt.j	
	Aquæ calcis,	f.℥ij.	M.

One teaspoonful with a teaspoonful of milk, breast milk if the infant nurses, repeated *pro re natâ*, for the vomiting so frequent in the summer epidemics of intestinal inflammation in the cities.

This recipe is much used in the Nursery and Child's Hospital of New York city. Or, the following may be administered:—

1090. R.	Potassæ bicarbonatis,	gr.xxv	
	Acidi citrici,	gr.xvij	
	Aquæ amygdalæ amaræ,	f.℥j	
	Aquæ,	f.℥ij.	M.

Teaspoonful, repeated *pro re natâ*.



MEREDITH CLYMER, M. D., NEW YORK.

This author gives the following indications for the treatment of *cholera infantum* :—

The instantly threatening symptoms, purging and vomiting, are to be stopped. Fermentation, and not chymification, is going on in the stomach and duodenum. Hence, small doses of the *bisulphites of soda or potassa*, with limed whey, will often act very happily, while the effect of poisonous drugs is always doubtful, and generally positively harmful. *Mercury* is, at best, negative. *Opium* and its preparations will be found valuable, if not contraindicated by cerebral epiphenomena. The effects should be carefully watched. Flannel, wrung out of hot water, and on which laudanum is poured, applied to the spine, will be found useful in checking vomiting. The function of the skin, which, in common with all the excreting organs, is inactive, must be excited. This may be done by gentle friction with woolen cloths, or a warm alkaline bath, in which the little patient should not remain longer than three minutes, being then quickly dried and wrapped in flannel. Food, of proper quality and quantity, should be given as soon as the stomach and bowels will tolerate it. Farinaceous articles are entirely inappropriate. Limed milk, to which a little gelatine has been added, or rennet whey, may be given; but in protracted cases, attended with great prostration and rapid emaciation, the *raw meat diet*, prepared as recommended by Prof. TROUSSEAU, will be often seized with avidity and well borne. Lean beef or mutton is first finely hashed, pounded in a mortar to a pulp, and then passed through a fine sieve. The thick concentrated juice thus obtained is nutritious and digestible, and, when salted or otherwise flavored, quite acceptable. Give a half to three-quarters of an ounce, in fractional doses, the first day. If well borne by the stomach, increase the quantity day by day, until a quarter or half a pound is taken in the course of the twenty-four hours. For the first day or two, much of it may pass, hardly changed, from the bowels; but this alone should not occasion its discontinuance. If too long continued, however, this diet is liable to generate *tænia*. White of eggs, thinned with natural or artificial Seltzer, Vichy, or weak lime water, is an excellent drink, to which a few grains of bicarbonate of soda may be added. Tonics and stimulants are often required. Of the former, minute doses of *arsenic*, alone, or combined with quinine, or the chloride of iron, or the pernitrate of iron, or the



tincture of *nux vomica*, may be given. Wine-whey, or brandy-and-water, to which a few drops of the aromatic spirits of ammonia have been added, are the best stimulants. The effect of sending the patient to a cool and mountainous region is immediate and lasting.

THOMAS HAY, M. D., PHILADELPHIA.

This practitioner has employed the following treatment in cases of cholera infantum, with the best results:—

- |          |   |           |    |
|----------|---|-----------|----|
| 1091. R. | <i>Hydrargyri chloridi mitis</i> ,      | gr.ij     |    |
|          | <i>Bismuthi subcarbonatis</i> ,         | gr.xvj—xl |    |
|          | <i>Pulveris ipecacuanhæ compositæ</i> , | gr.j—ij   |    |
|          | <i>Pulveris sacchari albi</i> ,         | gr.xij.   | M. |

For eight powders; one to be taken every three hours for two or three days, or until the tongue and mouth become moist, and the alvine excretion changed in color and consistency.

Then the following powders are given, and will ordinarily complete the cure:—

- |          |   |            |    |
|----------|---|------------|----|
| 1092. R. | <i>Bismuthi subcarbonatis</i> ,         | gr.xvj—xl  |    |
|          | <i>Pulveris ipecacuanhæ compositæ</i> , | gr.j—ij    |    |
|          | <i>Pulveris aromatici</i> ,             | gr.vij—xvj |    |
|          | <i>Pulveris sacchari albi</i> ,         | gr.xij.    | M. |

For eight powders; one to be taken every three or four hours, in the mother's or cow's milk.

Counter-irritation is kept up over the abdomen with mustard plasters, applied at intervals of three or four hours. The infant is allowed to suck at a piece of ice held in its mouth. When stimulants are required, the doctor gives from fifteen to thirty drops of port wine. When the infant is artificially fed, he gives it cow's milk and lime-water, in the proportion of one fluid ounce of the latter to five fluid ounces of the former; also broiled mutton or beef, minced very fine. All farinaceous food is forbidden. The child must be nursed or fed at regular intervals, and not allowed too much at a time.



# CONVULSIONS.

PROFESSOR JOHANN STEINER, M. D., OF PRAGUE.

It is not always easy to detect the cause of infantile convulsions. In such cases the causal treatment must give place to the symptomatic. Of the various remedies, our author prefers in such instances the following combination :—

1093. R.	Zinci oxidi,	gr. iv	
	Hydrargyri chloridi mitis,	gr. ij	
	Sacchari albi,	3j.	M.

Make eight powders. Give one every hour.

Remove all constricting clothing, apply mustard poultices to the trunk and extremities, and use clysters of cold water. The warm bath is often serviceable.

Convulsions from malarial toxæmia demand quinine; from worms, anthelmintics; from phimosis or elongated uvula, excision, etc.

## RÉSUMÉ OF REMEDIES.

*Anæsthetics.* Either chloroform or ether, by inhalation, are effective in emergencies.

*Belladonna* is valuable in the constitutional treatment.

*Chloral*, in doses of gr.v-x, every six hours, to a child of ten, frequently answers the purpose.

*Opium*, in some form, is preferred by many practitioners. It may be administered hypodermically, or by enema, every twenty minutes, until the pupils contract.

*Potassii Bromidum*, gr.x-3j, is usually a reliable means in idiopathic convulsive disorders. Dr. BLACHEZ (*Gazette Médicale*, December, 1875) recommends a mixed treatment, the bromide being given during the day and the chloral at night.

*Zinci Oxidum*, especially when combined with tonics, aids much in restoring the nervous equilibrium.

## EXTERNAL REMEDIES.

*Warm Baths*, in infants, often act as potent sedatives. *Cold to the head*, as compresses wrung out with ice-water or dilute ether, is valuable. TROUSSEAU commends pressure on the carotid arteries. The pulsation should be sought at the lateral part of the neck, and the pressure be gradually backward upon the spinal column. If it does not relieve in two or three minutes, it should not be continued. Of course, all reflex irritation should be sought for in the first instance and removed.



## CORYZA.

PROF. J. LEWIS SMITH, M. D., NEW YORK.

In children, ordinary attacks of this affection require little treatment beyond keeping the bowels open, soaking the feet in mustard water, and having the body warmly clothed. Friction with camphorated oil over the nose is of some benefit. In attacks which commence with greater severity, an emetic of syrup of ipecacuanha, given early, will moderate the inflammation, and may prevent the occurrence of bronchitis. Afterward, a simple diaphoretic mixture should be administered, such as the following :—

1094. R.	Syrupi ipecacuanhæ,	f.ʒij	
	Spiritus ætheris nitrosi,	f.ʒj	
	Syrupi simplicis,	f.ʒij.	M.

One teaspoonful every three hours to a child of six months.

In place of sweet spirits of nitre, *acetate of potash* may be employed, in the dose of one to two grains for infants. If there is febrile reaction, from half a minim to two minims, according to the age, of *tincture of digitalis* may be given in each dose.

In pseudo-membranous coryza the laryngitis which usually accompanies this affection demands the first attention. The injection of a solution of chlorate of potash, in water, several times a day, subdues the inflammation and removes the collection of mucus and pus. Or the following may be employed :—

1095. R.	Pulveris aluminis,	gr. xvj—xx	
	Aquæ,	f.ʒiv.	M.

The bromine solution (F. 1115), diluted as directed, will also be found useful when injected into the nostrils.

*Chronic coryza* should be treated by tonics and by alteratives, directed to the cachexia which may be present. Together with such constitutional treatment, a solution of nitrate of silver (gr. iij—v to f.ʒj), may be injected into the nostrils. An excellent formula for application to parts which can be reached by a camel's-hair pencil is—

1096. R.	Pulveris zinci oxidi,	ʒj	
	Glycerinæ,	f.ʒj.	M.

To be applied three or four times a day.



C. WEST, M. D.

1097. R. *Liquoris ammoniæ acetatis*, f. ʒj  
*Vini ipecacuanhæ*, m̄xvj  
*Potassæ nitratis*, gr. viij  
*Misturæ amygdalæ*, f. ʒvj. M.
- A teaspoonful every four hours for a child of six months.

DR. P. GUERSANT, OF PARIS.

In chronic coryza, with irritating secretions, this author recommends the following:—

1098. R. *Hydrargyri ammoniati*, ʒiss  
*Pulveris althæa*, ʒj. M.
- Use as a snuff.

## CROUP, MEMBRANOUS AND SPASMODIC.

PROF. FORDYCE BARKER, M. D., OF NEW YORK CITY.

This teacher always commences treatment by the following emetic of turpeth mineral:—

1099. R. *Hydrargyri sulphatis flavæ*, gr. iij-v.  
 For one dose. If it does not act in fifteen minutes, give a second dose of three to five grains, according to the age of the child. This, however, is rarely necessary.

He prefers this to all other emetics in croup.

If on the next visit he finds the child with a quick pulse, hot skin, somewhat hurried breathing, and an occasional ringing cough, but with no thoracic râles, he directs that it shall be kept quiet in bed, comfortably covered, but not with too many clothes, and prescribes the *veratrum viride*, in one or two drop doses, according to the age of the child, as, for example, in the following formula:—

1100. R. *Tincturæ veratri viridis*, gtt. xvj-xxx  
*Spiritus ætheris nitrosi*, f ʒij  
*Syrupi simplicis*, f. ʒj  
*Aquæ*, f. ʒvj. M.
- A tablespoonful every second hour.

He visits the child at least as often as every eighth hour, and increases or diminishes the dose, according to the effect of the medicine on the pulse. He is not satisfied until the pulse is below



eighty per minute, and then continues the veratrum in half the dose that was necessary to bring it down to that point. If thoracic râles, hurried and labored respiration, and other symptoms, indicate that the disease is extending downward, then substitute for the above prescription something like the following formula, of course varied according to the special indications of the case:—

1101. R.	Tincturæ veratri viridis,	gtt.xvj-xxx	
	Ammoniaë carbonatis,	℥ss	
	Syrupi tolutani,		
	Syrupi acaciæ,	āā	f.℥j. M.

A teaspoonful every second hour.

Sometimes, on account of increasing laryngeal and bronchial obstruction, the emetic of turpeth mineral should be repeated on the second or third day, but it is not necessary or well to repeat it a third time.

*Quinine* is a remedy of great value, and well tolerated in large doses in some of the diseases of the respiratory organs of children. It is of great service in some cases of croup in the advanced stages, when the respiration is hurried and irregular, the paroxysms of cough becoming less marked, the intermissions less distinct, and the cough husky instead of ringing. Our author then substitutes for the last formula the following:—

1102. R.	Quiniæ sulphatis,		
	Ammoniaë carbonatis,	āā	℥ss
	Syrupi senegæ,		
	Syrupi acaciæ,	āā	f.℥j. M.

To be well shaken. A teaspoonful every fourth hour.

When the croup is complicated with lobular pneumonia, give the quinine separately, four or five grains three times a day, while the little patient takes the last of the prescriptions containing veratrum viride.

HERMAN BEIGEL, M. D., ETC., LONDON.

Dr. B. recommends in a case of croup the use of the following medicated sprays, given in the order of their value. They are applied by means of the atomizer.

1103. R.	Aquæ calcis,	f.℥j.
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For one inhalation, lasting about a quarter of an hour, and to be repeated every two hours as long as bad symptoms are present.

The method of Dr. A. GEIGER, of Dayton, Ohio, is to pour hot



water on unslaked lime in a pitcher, and to have the patient inhale the vapor as it arises.

1104. R. Acidi tannici, gr.ij-xx  
Aquæ, f.℥j. M.  
For one inhalation, to last fifteen to twenty minutes.

1105. R. Potassii bromidi, gr.v-x  
Aquæ, f.℥j. M.

This inhalation, at the early stage of the disease, will often be found to arrest the symptoms.

With these inhalations the administration of emetics or other remedies may and must be combined, if considered necessary.

MEREDITH CLYMER, M. D., ETC., NEW YORK.

Blood-letting, either general or local, is generally harmful in the treatment of croup. The safest and best emetic is the sulphate of copper, in half or one-grain doses, every fifteen minutes, till the vomiting occurs. Afterward give the following:—

1106. R. Potassæ chloratis, ℥ij  
Potassii iodidi, gr.viiij  
Tincturæ opii camphoratae, ℥xl  
Liquoris potassæ, m℥xij  
Aquæ, f.℥ij. M.

A dessertspoonful, in water, every second or third hour.

Brush the throat and upper part of the larynx with the following:—

1107. R. Tincturæ ferri chloridi, f.℥j  
Aquæ, f.℥ij. M.

Beef-tea, wine, quinine and iron are generally required.

DR. FELIX VON NIEMEYER, PROFESSOR UNIVERSITY OF TÜBINGEN.

1108. R. Cupri sulphatis, gr.x-xv  
Aquæ, f.℥ij. M.

A large teaspoonful to be taken every five minutes until vomiting sets in.

In regard to the employment of emetics in croup, Prof. N. thinks that *they are only indicated when obstructing croup-membranes play a part in producing the dyspnœa, and when the child's efforts at coughing are insufficient to expel them. Impeded expiration is an indication of their employment.*

*Sulphate of copper* is preferable to tartar-emetic or ipecacuanha.



It should be given in full doses; in small ones it is uncertain, and more apt to operate as a poison.

If the bowels be confined, administer a clyster, so that the diaphragm may have room to act. The best is a cold one, as follows:—

1109. R.	Acidi acetici diluti,	f. ʒij	
	Aquæ,	f. ʒvj.	M.

If, however, there is no remission, notwithstanding the employment of the emetic and the cold application, apply the following concentrated solution, at intervals of several hours, to the entrance of the glottis:—

1110. R.	Argenti nitratis,	ʒss	
	Aquæ destillatæ,	f. ʒij.	M.

Dip a curved rod of whalebone, with a small sponge made fast to its lower end, into this solution, press down the tongue of the child, and endeavor to reach the entrance of the glottis with the sponge. There the sponge is immediately compressed by the muscular contraction which takes place, whereby certainly a portion of the liquid, if only a small one, arrives at the larynx. Administer also half a grain of calomel every two hours.

Should this treatment remain without effect, proceed at once to tracheotomy.

Besides treating the dyspnœa upon the principles given above, it may be necessary to relieve the paralytic symptoms due to blood-poisoning by carbonic acid. For this purpose the powerful stimulus obtained by pouring cold water upon the child while in a warm bath is of great service. Lose no time in making use of it, the moment the child begins to grow drowsy, the skin to cool, the sensorium to be benumbed, or as soon as emetics fail to act. A few gallons of cold water, poured from a moderate height, over the head, nape and back of the child, almost always cause it to revive for a while and to cough vigorously. Thus, sometimes, after the bath, masses of exudation are expelled. Other stimulants, such as camphor or musk, are much less effective, and ought not to be employed, save when insuperable objections are opposed to the cold effusion. They should be given in large doses, immediately prior to the emetic. The following formula may be used:—

1111. R.	Camphoræ,	gr. x	
	Ætheris acetici,	f. ʒijj.	M.

Ten to fifteen drops to be given every quarter of an hour.



PROFESSOR J. LEWIS SMITH, M. D., ETC., NEW YORK.

1112. R. Potassæ chloratis, 3j  
 Ammoniæ muriatis, 9ij  
 Syrupi simplicis, f.3j  
 Aquæ, f.3ij. M.

One teaspoonful every twenty minutes to half an hour, or in cases not severe every two hours. This should be continued regularly night and day until the cough becomes looser, or until it is evident, if the case be unfavorable, that it can be of no service.

The atmosphere the child breathes should be constantly loaded with moisture, without, however, that degree of heat which would add materially to the discomfort of the patient or attendants. The temperature should be of 75° or 80°.

Besides the nitrate of silver, three other substances have been used of late years for the topical treatment of the throat, which appear to be more effectual in removing the pseudo-membrane, and controlling the inflammation. One is *liquor ferri subsulphatis*; the second, *carbolic acid*, and the third, *bromine*. The following formulæ may be used:—

1113. R. Liquoris ferri subsulphatis, f.3j  
 Glycerinæ, f.3ss. M.
1114. R. Acidi carbolicæ fluidi, f.3j  
 Aquæ, f.3vj. M.
1115. R. Brominii, 3ij  
 Potassii bromidi, gr.xlv  
 Aquæ, f.3j. M.

This is called the bromine solution; but it must be considerably diluted for use. Twenty-four to forty drops should be added to an ounce of water for application to the fauces or larynx. Our author most highly recommends the sulphate of iron solution.

J. M. DA COSTA, M. D., PHILADELPHIA.

1116. R. Extracti hyoscyami fluidi, m.ij-x  
 Aquæ destillatæ, f.3j. M.

Used as an inhalation in spasmodic croup.

## RÉSUMÉ OF REMEDIES.

\**Acidum Lacticum*, as a solvent of false membrane in croup, is highly esteemed.

The following is the formula of the London Throat Hospital:—

1117. R. Acidi lactici, 3ss  
 Aquæ destillatæ, f.3x. M.

Use with an atomizer.



*Alumen* was the favorite emetic in this disease with the late Prof. CHARLES D. MEIGS. He gave ʒj, in molasses, as required.

\**Belladonna* is of considerable value in spasmodic croup.

*Ferrum Redactum* is useful in strengthening the system and diminishing the excessive nervous sensibility which is so constantly a cause of laryngismus stridulus.

\**Morrhuae Oleum* is an incomparable remedy in correcting the faulty constitution and diminishing that extreme nervous irritability, which of itself is sufficient to induce spasms. It may be given in teaspoonful doses to a child of from two to four months; in tablespoonful doses to one of six months. If it cause diarrhoea, Dover's powder may be added; if it disagree, from one to two tablespoonfuls should be rubbed daily on the spine.

\**Quiniae Sulphas*, given in the largest doses the child can bear, and during the intervals of the paroxysms, is a very satisfactory remedy, especially in weak and obviously nervous infants.

*Valerian* is highly recommended by Dr. G. HILL (*British Medical Journal*, April 11th, 1868), who, however, neglects to mention the preparation and dose he employed.

For other remedies, see *Diphtheria*.

## DIARRHŒA IN CHILDREN.

THEODORE TÜRK, M. D.

In the *Med. Chir. Centralblatt*, No. 1, 1873, this author says, in the more chronic cases a series of careful observations have shown him that roasted *acorns*, prepared as coffee, with a few beans of the real article, form the best dietetic, and at the same time medicinal remedy. Often, when nitrate of silver, tannin, Dover's powder, etc., have proved useless, the simple acorn-coffee (boiled, in cases of specially profuse diarrhoea, with from one to three grains of tannin, and in meteorism or sickness, with the addition of a piece of orange-peel to the decoction) has, from the first, lessened the stools and improved their quality, and very shortly restored appetite and nutrition. At the same time the children become, not fat, but healthy. The acorn-coffee is more efficacious than alkalies, preparations of lime, tonics (Peruvian bark and extract) and carminatives. Moreover, the children drink it readily, without becoming tired, and the painful, formal, and frequent administration of medicine is avoided.



R. W. ROSS, M. D.

In infantile diarrhœa, *gum acacia* is a valuable remedy. In the simple forms the mucilage of acacia, one part, diluted with three parts of water, is given alone; when the stools are green and accompanied with vomiting, or when the discharges are almost constant, the addition of a little gray powder to the diluted mucilage is recommended (*British Medical Journal*, September 3d, 1870).

JAMES S. HAWLEY, M. D., GREEN POINT, N. Y.

In infantile diarrhœa the indications are as follows: First, to remove all sources of irritation from the quantity or quality of the ingesta, or change of temperature. Second, to allay irritation by sedatives, of which the best are the preparations of opium and salts of bismuth. When irritation without pain exists, bismuth most promptly and satisfactorily allays it, but when accompanied with pain, the addition of a minute portion of opium becomes a necessary complement to its effectiveness. Thirdly, artificial digestion by the administration of *pepsin*.

1118. R. Pulveris pepsinæ Americanæ,  
Bismuthi subnitratis,                      āā      3j.                      M.

For ten powders. One to be given every three or four hours to a child a year old.

Opium may be combined if desired.

THOMAS HILLIER, M. D., LONDON, F. R. C. P., ETC.

1119. R. Acidi gallici,    gr. xij  
Tincturæ cinnamomi,    f. ʒi ss  
Tincturæ opii,    m. viij  
Aquæ carui,    q. s. ad. f. ʒij.                      M.

Two teaspoonfuls for a child two years old, with chronic diarrhœa and irritable stomach.

1120. R. Olei ricini,    f. ʒij  
Pulveris acaciæ,    ʒj  
Tincturæ opii,    m. viij  
Syrupi,    f. ʒij  
Aquæ carui,    q. s. ad. f. ʒij.                      M.

A teaspoonful for a child six years old.

A useful oleaginous mixture in dysenteric diarrhœa.

DRS. MEIGS AND PEPPER, OF PHILADELPHIA.

These writers recommend, in the treatment of *simple diarrhœa* of childhood, sulphate of magnesia combined with laudanum, as follows:—



- |          |                            |          |    |
|----------|----------------------------|----------|----|
| 1121. R. | Magnesiae sulphatis,       | 3j       |    |
|          | Tincturae opii deodoratae, | gtt.xij  |    |
|          | Syrupi simplicis,          | f.3ss.   |    |
|          | Aquae menthae,             | f.3ijss. | M. |

At one or two years, a teaspoonful every two or three hours. For older children, the proportion of magnesia and laudanum should be doubled.

If this fails, recourse must be had to an astringent. The official *mistura cretae* may be given in teaspoonful doses after each loose evacuation, three or four times a day, or tincture of *krameria* may be added, thus:—

- |          |                      |         |    |
|----------|----------------------|---------|----|
| 1122. R. | Tincturae krameriae, | f.3j-ij |    |
|          | Misturae cretae,     | f.3ij.  | M. |
- Teaspoonful, repeated as above directed.

They also commend the *aromatic syrup of galls*:—

- |          |                               |      |    |
|----------|-------------------------------|------|----|
| 1123. R. | Pulveris gallae optimi,       | 3ss  |    |
|          | Pulveris cinnamomi,           | 3ij  |    |
|          | Pulveris zingiberis,          | 3ss  |    |
|          | Spiritus vini gallici optimi, | Oss. | M. |

Let the ingredients stand in a warm place for two hours, and then burn off the brandy, holding some lumps of sugar in the flames. Strain through blotting paper. Fifteen to forty drops, three or four times a day, or, when the discharges are very frequent, every two or three hours.

In the chronic form of simple diarrhoea, they have found of late years the following tonic very useful:—

- |          |                                 |        |    |
|----------|---------------------------------|--------|----|
| 1124. R. | Tincturae nucis vomicae,        | f.3ss  |    |
|          | Tincturae gentianae compositae, | f.3iij |    |
|          | Syrupi simplicis,               | f.3v   |    |
|          | Aquae,                          | f.3ij. | M. |

A teaspoonful three times a day, after meals, for children of three or four years of age.

*Wine of pepsin* is also efficacious in such cases, in doses of half a teaspoonful thrice daily.

PROF. ALFRED VOGEL, M. D., OF DORPAT, RUSSIA,

This physician positively prohibits *cow's milk* in intestinal catarrh. He states that *penciling of the mouth with laudanum*, and the use of *opiate clysters*, stand at the head of all therapeutic measures. But occasionally, in the profuse diarrhoea of summer, opium proves inefficacious; then order small doses of calomel, gr.  $\frac{1}{8}$ , three or four times daily, or,



1125. R. Argenti nitratis, gr. ss  
 Aquæ destillatæ, f. ℥ iij. M.  
 A teaspoonful three or four times a day. A drop of laudanum may be added to each dose.

Vegetable remedies containing tannic acid, such as calumba, rhatany, pure tannic acid itself, and astringents in general, are with difficulty administered to small children, unless mixed with large quantities of syrup, and, on that account, should be seldom resorted to. In older children they may be oftener employed.

1126. R. Aluminis, gr. vj  
 Syrupi acaciæ, f. ℥ iij. M.  
 A teaspoonful thrice daily.

This will sometimes check the diarrhœa, which has been uninfluenced by any of the above remedies.

Dr. V. has often convinced himself of the utter inefficacy of all therapeutic remedies in the treatment of this disease when the child is sustained on milk diet.

The best prophylaxis consists in rendering the cow's milk given the child alkaline, by the addition of the following soda solution to each meal:—

1127. R. Sodæ carbonatis, ʒi  
 Aquæ, f. ℥ vj. M.

Several authors have very forcibly urged the importance of cold in infantile diarrhœa. Mr. E. Pocock, of London, invariably orders ice in large quantities, as well as frequent sponging with cold water, and he directs that all nourishment (unless the child be sucking) should be iced.

Dr. McKenna, also of London, in cases of great exhaustion employed cold-water baths, stimulant ice injections, and iced drinks.

Dr. C. G. COMEGYS, of Cincinnati, recommends cold baths.

Prof. H. C. WOOD, of Philadelphia, remarks:—"There can be little doubt that many of the cases reported as cholera infantum, enteritis, etc., are really instances of thermic fever, and are curable by treatment as such. Especially does this seem to be true of those cases in which the disease is popularly said to 'go to the head.' Cases of this character usually owe their cerebral symptoms either to intense exhaustion, to be treated by stimulants, or to intense fever, to be treated by cold baths. Any one who has seen the child on whom drugs have ceased to act, and who was



seemingly doomed to die, relieved in twelve hours by enforced cold bathing every three or four hours, will grant to Dr. COMEGYS the credit of having introduced one of the most life-saving improvements in modern infantile therapeutics."

When the diarrhoea is without febrile action—a wasting mucous discharge—the use of *ergotin*, or of the fluid extract of *ergot*, has been recommended, on the same authority, as of great efficiency.

## DIPHTHERIA.

EDWARD ELLIS, M. D., LONDON.

The most important indication in the treatment of diphtheria in children is to support the strength in every way, the disease being of perhaps a more lowering character than any other with which we are acquainted; and the other indication is to control, and if possible prevent, the formation and spread of the false membrane. Three remedies have been especially commended in the general treatment of this disease: *chlorate of potash*, *muriatic acid* and the *muriatic tincture of iron*. Probably a combination, such as—

1128. R.	Potassii chloratis,	gr. x	
	Tincturæ ferri chloridi,	℥v	
	Syrupi aurantii,	f. 3ss	
	Aquæ,	f. 3ij.	M.

—for one dose—is the best. At the same time, beef-tea, soups, wine, and every form of light nutriment, may be given with advantage. Rennet whey and buttermilk are useful. The quantity of wine and brandy absolutely needed is sometimes very large, and indeed can hardly be overdone. When dysphagia renders swallowing impossible, *enemata* of port wine and beef-tea must be resorted to. In obstinate vomiting, which is so dangerous a symptom, *ice* may be sucked, while the strength is supported by the rectum; and if the sickness does not pass away, the hypodermic injection of a little morphia over the stomach may be tried. When albuminuria is a primary symptom, the muriatic tincture of iron may be omitted and iodide of potassium substituted; and the child should, when practicable, drink freely of barley-water and other diluents. Locally, a solution of nitrate of silver (ʒj to aquæ f. 3ss), or perhaps, better, of



chlorinated soda (liquoris sodæ chlorinatæ f.℥ss, aquæ f.℥vj) may be applied by a camel-hair brush, or the latter solution may be syringed into the throat, as of course young children cannot gargle; or the muriatic tincture of iron may be applied locally, or the diluted muriatic acid or nitric acids, mixed with equal portions of glycerine.

Ice is always valuable, and may be freely sucked. The inhalation of iodine is also advocated. All attempts at bleeding, blistering, or indeed any form of counter-irritation, are worse than useless. The disease being contagious, the secretions and expectorations should be received in vessels containing chloride of lime; cleanliness should be scrupulously observed, and those in attendance should gargle their throats with a solution of chlorinated soda, or Condyl's fluid, or carbolic acid. Strychnine is the tonic from the use of which much may be hoped in the prevention and cure of the subsequent paralysis, and galvanism is the most useful local agency in these cases. Change of air is also desirable in restoring the enfeebled heart and nerves.

## DR. ROBERT BELL, OF GLASGOW, SCOTLAND.

1129.	R.	Acidi carbolici,	f.℥ij	
		Acidi sulphurosi,	f.℥vj	
		Tincturæ ferri chloridi,		
		Glycerinæ,	āā	f.℥j. M.

Apply to the throat with a large camel-hair pencil, or by means of the spray apparatus, every two hours.

Also,

1130.	R.	Potassæ chloratis,	℥iij	
		Acidi sulphurosi,	f.℥iijss	
		Tincturæ ferri chloridi,	f.℥iij	
		Glycerinæ,	f.℥j	
		Aquam,	ad. f.℥vj.	M.

A dessertspoonful every two hours.

With this medication must be combined free stimulation and plenty of nourishment, in the shape of soups, jellies and milk, from the very outset of the disease.

## PROF. J. LEWIS SMITH, NEW YORK.

1131.	R.	Sodæ bisulphitis,	℥j-ij	
		Tincturæ aurantii,	f.℥ij	
		Aquæ,	f.℥x.	M.

One teaspoonful every two hours. Sometimes, in place of water, a bitter infusion, like that of quassia, has been employed.



The sulphites have not been employed sufficiently to determine their value in this disease. Our author considers the following mixture one of the very best for ordinary cases of diphtheria:—

1132. R. Tincturæ ferri chloridi, f.ʒj  
 Potassæ chloratis, ʒj  
 Syrupi simplicis, f.ʒij. M.  
 One teaspoonful every two or three hours to a child of two or three years.

No drinks should be allowed the patient for a few minutes after each dose, in order that the full local effect may be obtained.

In those of full habit and florid complexion, iron is not so imperatively required. In such cases, use the following:—

1133. R. Elixir cinchonæ, f.ʒiv.  
 A teaspoonful to a tablespoonful for a dose, according to the age. This is a useful and not unpleasant remedy.

The formulæ recommended in the topical treatment of the larynx in croup are proper for the pharynx and larynx in diphtheria (see article on *Croup*). In those old enough, the following is a useful gargle:—

1134. R. Potassæ chloratis, Div  
 Aquæ, f.ʒiv. M.  
 Add to a spoonful of this—  
 Tincturæ ferri chloridi, f.ʒj.  
 And gargle with it every hour or two.

For the paralysis following diphtheria, the following formula (recommended by Professor METCALFE, of New York) is useful:—

1135. R. Strychniæ, gr.ʒ  
 Acidi nitrici diluti, f.ʒj  
 Aquæ, f.ʒvij. M.  
 From three to five drops, in a dessertspoonful of water, are to be given three times daily to a child of three years.

The anæmic state which succeeds diphtheria is to be remedied by the administration of iron, for several weeks.

THOMAS HILLIER, M. D., F. R. C. P., ETC., LONDON.

1136. R. Hydrargyri chloridi mitis, gr.iiij-vj  
 Pulveris ipecacuanhæ compositi, gr.vj. M.  
 For six powders; one every two or three hours for a child.



Calomel is now almost discarded in the treatment of diphtheria. Our author is not prepared to give it up. In some of his worst cases, in which recovery occurred, this drug was the remedy. It is not to be used indiscriminately in all cases. It should be limited to children with moderate constitutions, and to cases in which the exudation is firm and thick, or causing laryngeal obstruction with sthenic symptoms. It is to be continued until the bowels are relaxed with greenish stools. At the same time, abundant fluid nourishment, and sometimes wine, is to be given.

DR. H. V. SWERINGEN, FORT WAYNE, INDIANA. \*

This observer believes that *prompt cinchonism, followed by an alterative tonic, is, if not absolutely a specific, the most proper and successful treatment for diphtheria.* The line of treatment he pursued was as follows, for a child of six years old:—

1137. R.	Quiniæ sulphatis,	gr. xxxij	
	Acidi tannici,	gr. x	
	Syrupi simplicis,	f. 3j	
	Tincturæ olei menthæ piperitæ,	gtt. iij.	M.

A teaspoonful every three hours until cinchonism is induced.

After which (or it may be administered alternately with the above) the following is given:—

1138. R.	Potassii iodidi,	gr. xxxij	
	Potassii bromidi,	3ij	
	Syrupi simplicis,		
	Tincturæ cinchonæ compositæ,	aa f. 3j.	M.

Make a solution. A teaspoonful every three hours.

Alum and ipecac, as emetics, are useful when the exudation shows a disposition to extend to the larynx, or when there is much difficulty of breathing, from the tumefaction of the fauces, or from the accumulation of the pseudo-membranous deposits.

THOMAS HAWKES TANNER, M. D., F. L. S., ETC., LONDON.

1139. R.	Quiniæ sulphatis,	gr. xxiv	
	Acidi muriatici diluti,	f. 3ij	
	Tincturæ ferri chloridi,	f. 3iij	
	Infusi calumbæ,	f. 3vj.	M.

A tablespoonful, in water, thrice daily.



This preparation is also recommended by Dr. AITKEN for the treatment of diphtheria.

WM. AITKEN, M. D., EDINBURGH.

1140. R. Extracti nucis vomicæ,  
 Ferri sulphatis, āā gr.v-x  
 Pilulæ rhei compositæ, ʒij-iiij. M.

For twenty pills. One morning and evening in the paralysis following diphtheria.

DR. A. W. NELSON, OF NEW YORK.

This writer states (New York *Medical Journal*, January, 1874) that he and others have had remarkable success in diphtheria by the administration of chloride of iron internally, and the local use of subsulphate of iron.

1141. R. Liquoris ferri subsulphatis,  
 Glycerinæ,  
 Aquæ destillatæ, āā f.ʒss. M.

Apply with a large camel's-hair pencil to the fauces. In severe cases use the subsulphate in its full strength.

DR. B. RHETT, OF CHARLESTON, S. C.

Upon seeing a case of diphtheria, this writer (Charleston *Medical Journal and Review*, October, 1874, January, 1876) at once gives a moderate mercurial purgative (Hydrargyri chloridi mitis, gr.x), on the importance of which he lays especial stress. (Compare Dr. HILLIER'S remarks, above). Tinctura ferri chloridi is then administered in suitable doses, and the throat is swabbed, gargled, or atomized with the following :—

1142. R. Acidi muriatici,  
 Acidi carbolici, āā ℥xx  
 Glycerinæ, ʒj  
 Aquæ, ʒviij. M.

Use frequently.

### RÉSUMÉ OF REMEDIES.

*Apomorphia*, in the dose of gr.¼ by the mouth, or gr.⅙ hypodermically, is a certain, rapid and useful emetic in diphtheria.

*Cupri Sulphas* ranks, according to Dr. W. SQUIRE, with alum as one of the best and most effectual of emetics in diphtheria. He directs :—

1143. R. Cupri sulphatis, gr.v  
 Aquæ, f.ʒj. M.

A teaspoonful at a time to young children.



\**Ferri Chloridi Tinctura* is much employed in diphtheria. It should be commenced on the first day of the illness, or as soon as the patient is seen, and continued until the tongue becomes red and the throat improves. When deposit has already taken place, the good effects of the treatment will be shown, not by any alteration in the size of the patch, but by a diminution in the accompanying secretion, and by improvement of the general symptoms.

*Guaiacum*. The following formula has been recommended:—

1144. R.	Tincturæ guaiaci ammoniatæ,	f. ℥ss-v	
	Tincturæ cinchonæ compositæ,	f. ℥ss	
	Potassæ chloratis,	℥iv	
	Mellis,	q. s.	
	Aquæ,	ad. f. ℥viij.	M.

From a teaspoonful to a tablespoonful from one to five hours, or thrice daily, according to the severity of the case.

*Guaiacum*, as a gargle, in all varieties of *sore throat*, *hoarseness*, etc., is a remedy of ancient and acknowledged repute.

*Potassii Bichromas* is highly spoken of, gr.  $\frac{1}{16}$ – $\frac{1}{8}$  being given in water every half-hour till vomiting is caused, when it is to be continued every two hours.

*Sassafras*, oil of, is praised as a local application, by Dr. KENNARD, of St. Louis.

\**Stimulants*. Dr. W. SQUIRE, of London, lays down the rule, the less the quantity of nourishment the patient is able to take, the greater must be the dependence on the stimulant. The youngest children may require a teaspoonful of brandy every two hours; a child of three years of age, two teaspoonfuls. It may be given diluted in any way, very small quantities at a time, frequently repeated. Older children take it well mixed with iced or soda water. Champagne is often a good substitute for brandy. The quantity of stimulant ordered must be considered not only in relation to the immediate necessity that may exist for its employment, but also to the probable course of the disease and the strength of the patient; a moderate quantity repeated at regular intervals is of most service in maintaining the strength of the patient where all the symptoms are well marked and likely to go through their full stages; at certain crises of the disease, or where some symptoms only have attained great prominence, the benefit that results from a bold resort to stimulants is surprising, and the effect is the more marked if their use had up to that time been neglected.

#### EXTERNAL APPLICATIONS.

*Argenti Nitras*. Dr. W. SQUIRE, of London, recommends in diphtheria, when the whole of the false membrane is visible, and its margins within reach, to apply to the patch, and to the surrounding turgid mucous membrane, a solution of the nitrate (one part to three of distilled water). When there is much redness and pain, a weaker solution (one part to eight or twelve of distilled water), penciled over the whole surface, tends to prevent further exudation and affords relief. The solid nitrate is objectionable.

*Brominium*. The inhalation of the vapor of bromine has been found of service.

*Calcis Aqua*. Lime-water inhalations are very useful.

*Carbolici Acidum*. Dr. C. SEDGWICK recommends highly (*Medical Times*, February 27th, 1867) the following formula:—



1145. R. *Acidi carbolici*, ℥<sub>xx</sub>  
*Acidi acetici*, ℥<sub>xxx</sub>

Mix, and add gradually—

Mellis,  
*Tincturæ myrrhæ*, āā f.ʒij  
*Aquæ*, ad. f.ʒvj. M.

Use as a gargle for adults; apply by means of a sponge to the throat of children.

*Ferri Chloridi Tinctura*, applied alone or diluted with equal parts of glycerine.

\**Muriaticum Acidum*. Dr. ILLIER prefers this caustic to nitrate of silver.

*Iodinium*. Dr. WARING-CURRAN obtains excellent results from iodine inhalations:—

1146. R. *Potassii iodinii*,  
*Iodinii*, āā gr. iv  
*Alcoholis*, f.ʒiv  
*Aquæ*, f.ʒiv. M.

A teaspoonful (gradually increased to a tablespoonful) of the solution is to be placed, with a handful of dried garden sage, in a pint of boiling vinegar in a common inhaling jar, for inhalation. The inhalations are to be repeated about twelve times daily.

\**Lacticum Acidum*. Lactic acid inhalations, by means of a spray producer (15 to 20 gtt. *aquæ* f.ʒss), are said to act as a powerful solvent of the false membrane.

*Limonis Succus* is strongly recommended as a gargle.

*Potassii Chloras* in strong solution is an excellent gargle.

*Potassii Permanganas*. Dr. WATSON CAMPBELL recommends (*Edinburgh Medical Journal*, Feb., 1867) the following:—

1147. R. *Potassii permanganatis*, gr. x  
*Aquæ*, f.ʒxx. M.

To be used as a gargle, together with the internal administration of iron and port wine.

*Sodæ Chlorinata Liqueur*, used as a disinfectant gargle.

\**Sodii Hyposulphis*. Dr. MAYNARD recommends (*Medical Times and Gazette*, Dec. 30th, 1865) the local application of the hyposulphite of soda. In the very early stages he employs, two or three times a day, the following lotion:—

1148. R. *Sodii hyposulphitis*, ʒij  
*Glycerinæ*, f.ʒij  
*Aquæ*, f.ʒvj. M.

This, he finds, generally removes the incipient exudation in forty-eight hours, or less. In advanced stages he washes the throat out well with warm water by means of a flexible syringe, and then dresses the affected part with the above solution, using at the same time the following gargle:—

1149. R. *Sodii hyposulphitis*, ʒj  
*Glycerinæ*, ʒj  
*Aquæ*, Oj. M.



The effect of this solution he asserts to be most marked ; it appears to solidify and dry up the false membrane, and when the syringe is again used, which it should be frequently, the force of the water will wholly or partially wash it away. The exudation rarely re-forms, and the patient makes a comparatively rapid recovery.

*Sulphur.* The insufflation of sublimed sulphur is recommended by Dr. BARBOSA (*Practitioner*, November, 1868). The unwashed flower of sulphur should be applied, by means of a simple tube slightly bent, directly to the affected surfaces.

\**Terebinthine Oleum.* Dr. SYMONDS advises (*British Medical Journal*, March 14th, 1868) the application of turpentine at the very commencement. Hot turpentine epithems also often relieve the local distress.

## HYDROCEPHALUS.

C. WEST, M. D.

The value of *purgatives* can scarcely be overrated in acute hydrocephalus, but they must be given so as not merely to obtain free action of the bowels, but to maintain it for some days. This end is best secured, after having once overcome the constipation, by giving small doses of a purgative every five or six hours. The administration of strong cathartics every morning will not answer the end nearly so well ; if they cause sickness, it is better to give a single full dose of calomel, and follow it up with sulphate of magnesia at short intervals. The following mixture is then advised :—

1150. R.	Magnesiæ sulphatis,	ʒj	
	Potassæ nitratis,	gr. x	
	Syrupi limonis,	f.ʒiij	
	Aquæ,	f.ʒix.	M.

A dessertspoonful (f.ʒij) thrice daily, for a child of one year.

In all cases, of course, the solution and regulation of the purgatives must be determined by the strength of the child.

The local abstraction of blood by *leeches* sometimes proves serviceable when there is much febrile action. They should be placed on the crown of the head rather than on the temples. They are inadmissible when the patient is much debilitated.

J. S. RAMSKILL, M. D.

The *iodide of iron* is usually well borne by hydrocephalic chil-



dren, unless there be a tendency to congestion or inflammatory action. Among the children of the poor, the combination of *cod-liver oil* and syrup of the iodide almost always gives satisfactory results.

The *mercurial* plan of treatment advised by Prof. GOLIS, of Vienna, is regarded by Dr. RAMSKILL as one of the best. The head should be shaved, and the following ointment prescribed:—

1151. R.	Unguenti hydrargyri,	gr. xx-xl	
	Unguenti olei juniperis,	3j.	M.
To be rubbed on the shaved scalp, twice a day.			

The child should wear a woolen cap, to prevent the risk of the perspiration being checked by the cold air. *Calomel* (gr.  $\frac{1}{4}$ -ss) should be given thrice daily. If this purges too much, the mercurial inunction should be alone employed. The treatment is to be persevered in for thirty or forty days, when, if there be some improvement, the remedies may be gradually diminished, but the cap is to be worn after the inunction has been discontinued. If there be no marked improvement after six or eight weeks, some diuretic, as *acetate of potash*, or *squill*, may be added, and a couple of *issues* may be inserted in the occiput. *Blisters* to the nape of the neck may be advantageously substituted for these. Whenever there is heat of head, and the child grows fretful, restless and irritable, a couple of *leeches* behind the ears will be found of service. When convalescence has begun, it may be accelerated by small doses of *quinine*.

## RÉSUMÉ OF REMEDIES.

### EXTERNAL REMEDIES.

*Croton-oil* counter-irritation to the shaven scalp has been recommended by Dr. R. S. TURNER (*Edinburgh Medical Journal*, November, 1868). He uses the following liniment:—

1152. R.	Olei tigllii,	1 part	
	Olei olivæ,	3 parts.	M.

\**Hydrargyrum*. Mercurial inunction is recommended by Prof. GOLIS and Dr. RAMSKILL.

*Iodine* lotions to the scalp or inunction of iodine ointment, used conjointly with iodide of iron and cod-liver oil internally, offer a chance of success in the advanced stage.



*Ipecacuanha*. The following counter-irritation is said to have produced great amelioration of the symptoms:—

1153. R.	Pulveris ipecacuanhæ,	℥ij	
	Olei olivæ,	f.℥ij	
	Adipis,	℥ss.	M.

To be rubbed on freely for fifteen or twenty minutes, thrice daily, and the parts then enveloped in flannel. In thirty or thirty-six hours an eruption appears, which remains out for three or four days.

## INCONTINENCE OF URINE.

DR. A. G. HEDENUS, OF GERMANY.

1154. R.	Tincturæ cantharidis,	f.℥ij.	
	Olei petrolei,	f.℥ss.	M.

This liniment is to be rubbed, morning and evening, over the hypogastric and lumbar regions in children affected with incontinence of urine. Warm carbonate of sodium and malt baths.

THOMAS KENNARD, M. D., NEW YORK.

1155. R.	Morphiæ sulphatis,		
	Veratriæ,	āā	gr.vij
	Adipis,		℥j.
			M.

The author employed this ointment in friction of the perineum, with success, in the incontinence of three paralytics, the cure being effected at the end of several days.

WILLIAM THOMPSON, M. D., PETERSBOROUGH, ENGLAND.

1156. R.	Chloral hydratis,	℥ij	
	Syrupi tolutani,		
	Aquæ,	āā	f.℥ij.
			M.

A tablespoonful every night on going to bed, and the patient to fast from seven in the evening until the following morning.

This author records several cases of nocturnal incontinence of urine treated on this simple plan with the most happy results. This treatment is unattended with the unpleasant effect of *bella-donna* on the vision, etc.

See further, under *Diseases of the Urinary Organs*.



## PERTUSSIS.

PROF. JOHANN STEINER, M. D., OF PRAGUE.

This judicious author remarks that we have no specific remedy for whooping cough, and of all those which have been recommended, belladonna, in doses of the extract of  $\frac{1}{10}$ ,  $\frac{1}{6}$  or  $\frac{1}{2}$  a grain three or four times a day, either alone or in combination with quinine or the oxide of zinc, seems of greatest service. The dose of belladonna is to be gradually increased until symptoms of intoxication appear. When there is abundant mucous secretion and no vomiting, an occasional emetic is useful.

Prof. BARTHOLOW and others consider the best form for administering belladonna is a solution of the sulphate of atropia:—

1157. R.	Atropiæ sulphatis,	gr. j	
	Aquæ destillatæ,	f. ʒj.	M.
Two to four drops at a dose.			

He believes it most effective in the spasmodic stage, when there is profuse bronchial secretion.

MR. JOHN REYNOLDS, LONDON.

1158. R.	Quiniæ sulphatis,	grs. xvj	
	Acidi sulphurici diluti,	q. s.	
	Tincturæ aurantium,	f. ʒj	
	Aquam,	ad. f. ʒij.	M.
Two teaspoonfuls every three hours.			

Mr. REYNOLDS claims for quinine a *specific abortive* power over whooping cough. With the above formula he cures his cases in two days. Other physicians report favorably of the method. To do good it must be pushed to a quantity equal to a full antiperiodic dose. To a child under three years, ten grains should be given in twenty-four hours; to a child twelve years old, from sixteen to twenty grains should be given in the same time.

DRS. MEIGS AND PEPPER, PHILADELPHIA.

1159. R.	Aluminis,	ʒijss	
	Syrupi zingiberis,		
	Syrupi acaciæ,		
	Aquæ,	aa f. ʒj.	M.
A tablespoonful thrice daily, every five or six hours.			

This recipe, when prepared with good syrups, tastes very much like lemonade, rendering it acceptable to children.



Our authors more generally employ alum in combination with belladonna. They have obtained better results from the following formula than any other ever employed:—

1160. R.	Extracti belladonnæ,	gr. j	
	Aluminis,	ʒss	
	Syrupi zingiberis,		
	Syrupi acaciæ,		
	Aquæ,	āā	f. ʒj. M.

A teaspoonful morning, noon and night; also once in the night, if the cough be troublesome.

1161. R.	Potassæ carbonatis,	ʒj	
	Cocci,	ʒss	
	Sacchari albi,	ʒj	
	Aquæ,	f. ʒiv.	M.

Dessertspoonful thrice daily to a child a year old.

This mixture has long enjoyed a high reputation in this country and abroad. Our authors, believing its efficacy to be due to the carbonate of potash, ordinarily omit the cochineal. This recipe, together with the alum and belladonna mixture given above, are the most useful agents we have to keep down the violence of the disease.

#### DR. GOLDING BIRD, LONDON.

1162. R.	Aluminis,	gr. xxv	
	Extracti conii,	gr. xij	
	Syrupi rheados,	f. ʒij	
	Aquæ anethi,	f. ʒiij.	M.

A medium-sized spoonful every three hours in the second or nervous period of the disease, after the subsidence of inflammatory symptoms, and when the patient is harassed and exhausted by the attempts to get rid of the copious bronchial secretion.

Under these circumstances, this author considers alum, which he administers according to the above formula, the most satisfactory of all remedies, affording the speediest and most marked relief.

#### E. M. SNOW, M. D., PROVIDENCE, R. I.

Our author has often recommended *carbolate of lime* as a remedy to relieve the spasmodic fits of coughing in this disease, and the evidence is abundant that it is of real value for this purpose. It is used by exposing it to the air in the rooms where the children live and sleep, so that the odor will be plainly perceptible at all times.



Dr. VOGELSANG, of Switzerland, finds that one or two scruples of bromine, and as much bromide of potassium, to a tumblerful of hot water, placed in the room of a child suffering from whooping cough, affords it great relief. The mixture should be renewed three or four times a day.

### RÉSUMÉ OF REMEDIES.

*Acidum Hydrocyanicum*, useful after the catarrhal symptoms have diminished.

*Belladonna* (see above). Prof. J. LEWIS SMITH, of New York, commonly employs the *extract of belladonna* in one-grain pills. For an infant one year old, one pill is dissolved in eight teaspoonfuls of water; three years, in four teaspoonfuls. A teaspoonful to be given once, or, if there be no appreciable effect, three or four times daily. If there be no modification of symptoms, an additional half-spoonful should be given on the third day.

*Castanea*, chestnut leaves, recommended by Dr. J. LUDLOW, of Cincinnati:—

1163.	R.	<i>Castanæ</i> vscæ,	℥ss	
		<i>Aquæ</i> bullientis,	Oj.	M.

Add to this a pint of cold water; sweeten with white sugar to make it palatable, and administer cold. As much should be given during the day and evening as the patient can be induced to take.

*Camphoræ Monobromas* is a useful sedative.

*Chloral*, in small doses, allays the cough.

*Potassii Bromidum* and *Ammonii Bromidum* are of value as sedatives.

*Potassii Sulphuretum*, commended by Dr. MACKELCAN, of Canada, in doses of gr.iiij-vj in sweetened water.

*Terebinthinæ Oleum*, in pertussis complicated with irritative fever, bronchitis or convulsions, is praised by Dr. BEDFORD BROWN, of Alexandria, Va.

*Tonka Bean* has been employed with success by Dr. JOHN COOPER, of Philadelphia. Gtt.v-viij of the fluid extract every three hours to a child five years old.



## PNEUMONIA, INFANTILE.

THOMAS HILLIER, M. D., LONDON, F. R. C. P., ETC.

Usually the best treatment in the lobular pneumonia of children is to keep the patient in bed in a room of about 60°, well ventilated, without a draught, milk diet during the height of the fever, and, when the temperature falls, some good beef-tea, and a simple saline mixture, such as—

1164. R.	Potassæ citratis,	℥j	
	Syrupi aurantii,	f.ʒij	
	Aquæ,	q. s. ad. f.ʒij.	M.

Two teaspoonfuls *pro re natâ*.

The tendency of the disease in children is to recovery. The great point is to do nothing which will interfere with rapid convalescence. Antimony is seldom desirable or necessary; if given at all, it should be confined to those cases in which the pulse is full and strong, the temperature very high, and the skin and mucous membranes very dry and injected, and it should be given only for a short time, at an early stage of the disease. Counter-irritation is not much to be relied upon. When there is severe pain in the side, a mustard plaster is of service. Blisters are seldom or never to be recommended, certainly not in the acute stage. If resolution comes on very slowly, and there is persistent pleuritic pain, an occasional flying blister will be of service. Calomel is not to be recommended, except as an occasional aperient. If the pneumonia is complicated with bronchitis, and the bronchi contain much mucus, a stimulant expectorant is indicated, such as—

1165. R.	Ammoniæ carbonatis,	gr.vij-xij	
	Tincturæ scillæ,	℥xx	
	Syrupi,	f.ʒij	
	Decocti senegæ,	q. s. ad. f.ʒij.	M.

Two teaspoonfuls for a child three years old.

During convalescence, the use of iron, in a mild form, is of service, as—

1166. R.	Ferri et quiniæ citratis,	℥j	
	Syrupi limonis,	f.ʒij	
	Aquæ,	q. s. ad. f.ʒij.	M.

Two teaspoonfuls thrice daily.







1172. R. Olei tigllii, f.ʒj  
 Linimenti saponis, f.ʒj. M.

To be rubbed into a limited spot on the chest twice a day till pustulation, and then once a day for a week.

So long as there is much heat of the skin counter-irritants should not be employed.

PROF. J. LEWIS SMITH, M. D., NEW YORK.

In the earlier stages, the following is a useful formula for a child of five years:—

1173. R. Tincturæ ipecacuanhæ compositæ, gtt.xvj-xxiv  
 Tincturæ aconiti radicis, gtt.xvj  
 Syrupi tolutani,  
 Aquam, ad. f.ʒj. M.

One teaspoonful every three hours.

In the second stage, that is when there are signs of lung hepatisation, such as bronchial respiration and dullness on percussion, aconite and veratrum viride do harm. The following may then be employed:—

1174. R. Morphiæ sulphatis, gr. j  
 Syrupi ipecacuanhæ, f.ʒj  
 Syrupi tolutani, f.ʒij. M.  
 Teaspoonful every three hours.

In feeble children, and in secondary pneumonitis, *quinine* is preferable to any other agent for reducing the temperature and pulse, as it does so without causing depression.

## RACHITIS.

DR. EUGENE BOUCHUT, OF PARIS.

1175. R. Sodii phosphatis, ʒj  
 Sodii carbonatis, ʒij  
 Sacchari lactis, ʒiiij. M.

Divide into three pinches. One at each meal to rachitic children. Cod-liver oil, salt and aromatic baths, frictions on the skin with flannel impregnated with aromatic vapors.

DR. NORMAN MOORE, LONDON.

The first point in the treatment of rickets is the regulation of the diet. If past eight months, the child must be weaned: if



younger, it should be partly fed on cow's milk. Cod-liver oil is the most valuable remedy. General tonics and change of air are to be urged.

## SCARLET FEVER.

PROF. J. LEWIS SMITH, M. D., NEW YORK.

In moderately severe and grave cases the external treatment should be by cold applications to the head and sponging the face and arms. This may be frequently repeated. Immersion in cold water or pouring it upon the person is questionable, as such a shock may increase the liability to chronic convulsions.

The itching of the skin should be relieved by *inunction*. The best substitute for this purpose is sweet oil or glycerine, to each ounce of which six or eight drops of carbolic acid are added. [Other authors commend, as still better, cocoa butter, *theobroma cacao*, which has a marked cooling effect.] The inunction should be made with linen or muslin, and the substance should be applied frequently to those parts of the surface which itch.

As an *internal remedy*, carbonate of ammonia is one of the best:—

1176. R.	Ammonii carbonatis,			
	Ferri et ammonii citratis,	āā	3ss	
	Syrupi simplicis,		f. 3iv.	M.

A tablespoonful, every three hours, to a child three years old.

In the malignant forms of the disease, with the temperature at 105°, drowsiness, delirium and restlessness, the sulphate of quinine, in full doses, is more useful than any other remedy; gr. iij—v, thrice daily, to a child of five years. If the stomach will not retain it, give doses of gr. xij by enema. A hot mustard-bath or foot-bath develops the rash, and allays nervous excitement; it is especially indicated if the convulsions occur attended by disappearance of the eruption.

For the *pharyngitis* a slice of salt pork, cut thin, and stitched to a single thickness of muslin, should be applied to the throat. It should pass from ear to ear. This application should be continued throughout the fever, being left off for a day or two if too much



soreness is induced. It is a gentle and efficient counter-irritant. Local applications to the fauces are still more important:—

1177. R.	Acidi carbolic,	gtt.xv-xxx	
	Potassæ chloratis,	ʒiij	
	Glycerinæ,		
	Aquæ,	ʒā	ʒiij. M.

For a gargle.

1178. R.	Acidi carbolic,	gtt.v	
	Liquoris ferri subsulphatis,	f.ʒiij	
	Glycerinæ,	f.ʒj.	M.

To be applied with a camel-hair pencil, three or four times daily.

Yeast is useful in many of these cases, given in doses of f.ʒss-f.ʒj several times a day. No drink should be allowed for several minutes after swallowing it.

#### HIRAM CORSON, M. D., NORRISTOWN, PA.

This writer has for years been a prominent champion of the *ice* and *cold-water* treatment of scarlatina, advocated early in this century by Dr. JAMES CURRIE, of London, and later by Professor TROUSSEAU, of Paris.

He applies the ice in moderate quantities, tied up in two small pieces of bladder, and one placed on each side of the neck, over the parotid gland, and retained by a strip of muslin brought under the jaw and *tied on the top of the head*, not around the neck. If no bladder nor gutta-percha bag can be procured, fold a strip of old muslin twice, so that when thus folded it shall be three inches wide, and long enough to extend from the bottom of one ear, under the jaw, to the bottom of the other. To each end of this sew a strip of muslin of the same width and a foot or more in length, by which, when applied, it may be tied to the top of the head. Have a line of stitches run crosswise through the middle of the fold; there will then be a pocket for ice on each side of the neck. For the first application, wet this with cold water alone, and tie it on; after wetting it a few times, slip into the pouch, on each side of the neck, three or four large lumps of ice, large as a shellbark, and keep them well stocked with ice. Give the ice freely inside, apply it over the nose, and sponge the body and limbs freely with cool or cold water.



## SCARLATINA.

STILES KENNEDY, M. D., OF MICHIGAN.

According to this writer, two medicines only have gained much reputation for mitigating or subduing the symptoms of fever in this disease, or the disease itself, and the profession is about equally divided as to their respective merits. One is the *chlorine mixture*, which, for ready use, may be prepared about as follows:—

1179. R.	Potassæ chloratis,	3j	
	Acidi muriatis,		
	Aquæ,	āā	f. 3j. M.

From two to eight drops of this to a tablespoonful of water may be given every two hours. For children over eight years of age a solution made of two drachms of the mixture and a pint of water is strong enough to give, in tablespoonful doses. It is generally prepared sweetened with simple syrup, but at best it is an unpleasant dose to many children, and often makes them complain of burning in their throats.

The other medicine alluded to is the *liquor ammoniæ acetatis* of the pharmacopœia. Probably no anti-febrile mixture has stood the test of the experience of the profession for so long a time with so much satisfaction as this, not in scarlet fever particularly, but in all febrile diseases; and our author does not remember ever to have heard it complained of when the vital powers begin to flag. An excess of carbonate of ammonia may be added in the quantity of five or ten grains to the ounce:—

1180. R.	Ammoniæ carbonatis,	ʒij-iv	
	Liquoris ammoniæ acetatis,	f. 3iijss	
	Syrupi simplicis,	f. 3ss.	M.

Give from a half to a whole tablespoonful in a little water, every one or two hours, according to the age of the patient and the urgency of the symptoms.

H. T. CLEAVER, M. D., IOWA.

1181. R.	Acidi carbolici,	3j	
	Alcoholis diluti,	f. 3ij.	M.

Mix a teaspoonful of this with a tablespoonful of water, and use either as a gargle or with the mop, depending upon age and ability to gargle, say once every two hours. Of the same give ten to



twenty drops in mucilage of acacia at the same intervals, the dose depending upon age of patient.

Our author has been as much surprised as gratified at the almost immediate relief afforded by the application of this to the inflamed throat of scarlatina.

## DR. N. GALLOIS, PARIS.

- |          |                |        |    |
|----------|----------------|--------|----|
| 1182. R. | Acidi gallici, | gr.iss |    |
|          | Syrupi,        | f.ʒv   |    |
|          | Aquæ,          | f.ʒxv. | M. |

To be taken in divided doses in the course of the day, in the albuminuria and anasarca which complicate scarlatina.

## DR. H. ROGER, PARIS.

- |          |                     |           |    |
|----------|---------------------|-----------|----|
| 1183. R. | Tincturæ digitalis, | gtt.x     |    |
|          | Syrupi scillæ,      | f.ʒijss   |    |
|          | Syrupi acaciæ,      | f.ʒviijss |    |
|          | Syrupi lactucarii,  | f.ʒxv.    | M. |

A teaspoonful to be given to children in the albuminuria of scarlatina every two hours. Paint the lumbar region with the dilute tincture of iodine, rub the limbs with a flannel impregnated with the vapors of benzoin, and administer a gentle laxative once or twice a week.

## STOMATITIS.

## WILLIAM AITKEN, M. D., EDINBURGH.

- |          |                              |         |    |
|----------|------------------------------|---------|----|
| 1184. R. | Liquoris ferri pernitratiss, | gtt.x   |    |
|          | Syrupi aurantii,             | f.ʒss   |    |
|          | Aquæ,                        | f.ʒvss. | M. |

A fourth part to be given to a child three or four years of age, four times a day, in *aphthous stomatitis*.

In cases where parasitic vegetable productions abound, the application of the following solution removes the lesions in twenty-four hours :—

- |          |                 |       |    |
|----------|-----------------|-------|----|
| 1185. R. | Sodæ sulphitis, | ʒi    |    |
|          | Aquæ,           | f.ʒj. | M. |

The acid secretions of the mouth decompose the salt and set free the sulphurous acid, which destroys the parasite.

- |          |                         |        |    |
|----------|-------------------------|--------|----|
| 1186. R. | Acidi carbolici fluidi, | f.ʒss  |    |
|          | Aquæ bullientis,        | Oviij. | M. |

Allow the solution to become warm or tepid, and syringe the mouth frequently with it, in *cancrum oris*.



PROF. J. LEWIS SMITH, NEW YORK.

1187. R. Potassæ chloratis,  $\mathfrak{z}\text{i}$   
 Mellis, f.  $\mathfrak{z}\text{ss}$   
 Aquæ, f.  $\mathfrak{z}\text{ij}$ . M.

One teaspoonful every two or three hours, in *ulcerous stomatitis*.

It often acts like a specific for this as well as other forms of stomatitis. It should be allowed to run over the affected part, as it is believed to have a local action.

1188. R. Sodæ biboratis,  $\mathfrak{z}\text{i}$   
 Glycerinæ, f.  $\mathfrak{z}\text{j}$ . M.

This wash is to be applied by a camel-hair pencil, or with a soft cloth upon the finger or a stick, four or five times daily, in *thrush*.

There is an objection to using any application for the removal of thrush which contains either sugar or honey, since either substance, remaining in the mouth, would rather promote the growth of the parasite.

In the intervals between the applications of borax, if the buccal surface be hot, dry and tender, mucilaginous washes, as the mucilage of acacia or mallow, should be employed. If the disease continue, the mouth should be occasionally washed with—

1189. R. Zinci sulphatis, gr. ij-iv  
 Aquæ rosæ, f.  $\mathfrak{z}\text{ij}$ . M.

1190. R. Cupri sulphatis,  $\mathfrak{z}\text{ij}$   
 Pulveris cinchonæ,  $\mathfrak{z}\text{ss}$   
 Aquæ, f.  $\mathfrak{z}\text{iv}$ . M.

To be applied very carefully, twice a day, to the full extent of the ulcerations and excoriations in *gangrene of the mouth*.

This local treatment (recommended by EVANSON and MAUNSELL) our author believes to be preferable to that advised by any other writer. He has seen it so successful that he should employ it in all ordinary cases from the first visit.

The addition of cinchona is useful in this formula, by retaining the sulphate of copper longer in contact with the edges of the gums.

In some cases the following is useful :—

1191. R. Zinci sulphatis,  $\mathfrak{z}\text{i}$   
 Aquæ, f.  $\mathfrak{z}\text{j}$ . M.

The above treatment is preferable, providing it is equally effectual in arresting the gangrene, to the application of the strong escharotics recommended by many.



ALFRED VOGEL, M. D., PROFESSOR IN THE UNIVERSITY OF DORPAT,  
RUSSIA.

1192. R. Sodæ biboratis, ℥j  
Aquæ, f. ʒj. M.

To be used to cleanse the mouth, every hour, in cases of *stomatitis* in infants.

This feebly alkaline solution combats the tendency of the profusely secreted saliva rapidly to become sour. The chest is to be protected against getting wet by a piece of oil-silk, which is secured under the jacket, and the infant is only to be allowed to drink cow's milk, with water. The painful ulcers may be relieved for many hours, and even permanently, by cauterizing them with the solid nitrate of silver.

In idiopathic stomatitis spontaneous recovery takes place in eight, or, at the longest, fourteen days. Symptomatic stomatitis in febrile disease does not usually call for any particular interference.

1193. R. Potassæ chloratis, ℥j  
Syrupi, f. ʒij  
Aquæ, q. s. ad. f. ʒiv. M.

The whole amount to be administered in the course of the day to a child one year of age, in *putrid sore mouth*.

At the end of this time the smell, in all cases and in every degree of the infection, is *completely abolished*. The remedy should be continued three or four days, or the disease will return. Our author has never found it necessary to employ this remedy longer than four days, nor has he ever noticed any bad effects, such as loss of appetite, diarrhœa, etc.

## TONSILLITIS.

PROF. JOHANN STEINER, M. D., OF PRAGUE.

When the case is seen early, an abortive treatment should be attempted, by penciling the tonsils with a strong solution of nitrate of silver, as—

1194. R. Argenti nitratis, ʒj  
Aquæ destillatæ, f. ʒj. M.

Apply with a camel-hair pencil.



Solid nitrate of silver should not be used with children, especially when they are young. Tinctura ferri chloridi may also be used, diluted one-half. The use of ice, by sucking it in small pieces, will be found to give great relief, especially in the first stage. Scarification had better be avoided. Where suppuration threatens, poultices will afford relief.

PROF. ROBERTS BARTHOLOW, M. D., OF CINCINNATI.

Clinical experience has shown that *guaiac* is a capital remedy in tonsillitis :—

- |          |                   |      |    |
|----------|-------------------|------|----|
| 1195. R. | Tincturæ guaiaci, | f.℥j |    |
|          | Vitelli ovi,      | No.j |    |
|          | Sacchari albi,    | ℥j   |    |
|          | Lactis,           | ℥iv. | M. |
- Half this amount every four hours.

## WORMS.

PROF. J. LEWIS SMITH, M. D., OF NEW YORK.

The long-popular American remedy for worms is the pink root, *Spigelia marilandica* :—

- |          |                           |        |    |
|----------|---------------------------|--------|----|
| 1196. R. | Fluidi extracti spigeliæ, | f.℥j   |    |
|          | Fluidi extracti sennæ,    | f.℥ss. | M. |
- One teaspoonful to a child of three to five years.
- Or,
- |          |                                    |           |    |
|----------|------------------------------------|-----------|----|
| 1197. R. | Fluidi extracti spigeliæ et sennæ, | f.℥j      |    |
|          | Santonini,                         | gr.viiij. | M. |
- One teaspoonful to a child of five years.

"This is probably the best anthelmintic that can be employed for the destruction of the round worm in uncomplicated cases, and it is also very useful in treating the *ascaris vermicularis*."

In some cases of protracted intestinal disease, attended by an increased and vitiated secretion, there is nothing so good as *turpentine*. The following is Dr. CONDIE'S formula :—

- |          |                           |       |        |
|----------|---------------------------|-------|--------|
| 1198. R. | Mucilaginis acaciæ,       | f.℥ij |        |
|          | Sacchari albi,            | ℥j    |        |
|          | Olei terebinthinæ,        |       |        |
|          | Spiritus ætheris nitrosi, | āā    | f.℥iij |
|          | Magnesia,                 |       | ℥j     |
|          | Aquæ menthæ,              |       | f.℥j.  |
- A teaspoonful to a child of five years.



## DR. EUGENE BOUCHUT, PARIS.

1199. R. Hydrargyri chloridi mitis, gr.ij  
 Santonini, gr.iss  
 Sacchari lacti, gr.xv. M.

To be given in one dose, as a vermifuge, in a teaspoonful of honey, to an infant two years old.

## DR. GIORDANO, FLORENCE.

1200. R. Sulphuris loti, ʒss  
 Magnesiae, ʒj. M.

Divide into four powders. One to be given morning and evening, to children who have passed worms, in order to prevent their reproduction.

## DR. GUICHON, PARIS.

1201. R. Santonini pulveris, ʒj  
 Resinae jalapae, gr.ij  
 Chocolate, ʒj. M.

Divide into thirty lozenges. Give one in the morning, on an empty stomach, to an infant two years old; two or three to older children.

1202. R. Aloës barbadensis, ʒss  
 Potassii carbonatis, gr.xv  
 Decocti amyli, f.ʒx. M.

To be given as an injection in ascarides of the rectum.

## PROF. W. H. VAN BUREN, M. D., NEW YORK.

1203. R. Acidi carbolici, gtt.x-xx  
 Glycerinae, ʒj  
 Potassae chloratis, ad. saturandum.  
 Aquæ, f.ʒviii. M.

Use as an enema in thread worms, *oxyuris vermicularis*.

## DR. F. WEBB, OF MICHIGAN.

This practitioner has stated (*Michigan University Medical Journal*, November, 1871) that in cases of ascarides the *hyposulphite of soda*, in doses large enough to produce slight catharsis, given three times a day, has availed to expel ascarides when other vermifuges and various enemata have failed.

Along with whatever other treatment is used for thread worms, it is important to anoint, with mercurial or other parasiticide ointment, the anus and adjacent parts, from time to time, in order to destroy the ova of the worm which are frequently deposited external to the rectum.



DR. G. CALDERWOOD, OF ENGLAND.

This writer remarks on the administration of santonine (*British Medical Journal*, February, 1875), that it should always be given for three or four days continuously before a purgative is prescribed. To give it with, or only once before, a cathartic, does not accomplish the work completely. It acts toxically, and must have time to do its work. The worms are passed like other fecal matter, when dead; and so long as they are alive, no amount of purging will bring them all away.



## PART II.

# Surgical Therapeutics.

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### I. WOUNDS AND INJURIES.

*The Open Treatment of Wounds—Water Dressings—Earth Dressings—Antiseptic Dressings—Local Anæsthetics—Bites and Stings—Burns and Scalds—Frost-bite—Sprains and Bruises.*

#### THE OPEN TREATMENT.

This simplest of all methods of dressing amputations and other wounds has been practiced with great success in the hospital at Berne, Switzerland; Bellevue Hospital, New York; by Professor F. PEYRE PORCHER, of Charleston, South Carolina, and others.

As practiced at Bellevue in amputations, it is as follows:—The flaps are not even approximated, but left entirely open. A pillow of oakum is placed under the stump, which is allowed to rest upon this support until the wound is nearly healed. A small piece of gauze is placed over the contour of the stump, and a cradle is placed over the limb, so that the clothes may not come in contact with the painful extremity. This is all the dressing that is employed; no sutures are used, except in the lateral skin-flap method. No adhesive plaster is employed, no oil-silk is placed over the stump, no bandage is applied, no dry charpie is stuffed into the wound, no fenestrated compresses are placed between the flaps; in other words, the stump is left entirely alone, just as the surgeon made it in his amputation. The wound is thus allowed to drain freely, and the stump is gently washed at frequent intervals by means of an Esmarch's wound-douche. The water in this irrigator is impregnated with crystals of carbolic acid, and, after this ablution, balsam of Peru (which makes a fine stimulating application) is poured over



the granulating surface. The discharge which falls from the wound is removed every few hours, in order to secure perfect cleanliness. During the entire healing of the wound the greatest possible care is exercised in reference to the use of the instruments necessary to perform the dressing of the stump. No sponges are ever used in the wards. Each patient has his own bottle of balsam of Peru, and every instrument used in the dressing of one stump is thoroughly washed in carbolic-acid water before it is employed in the dressing of another.

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## WATER DRESSINGS.

The free use of water as a dressing is as old as surgery. The *temperature*, however, at which it is best to apply it continues to be a matter of discussion. As long as to keep down inflammation was the main object, cold water seemed the most appropriate. It was iced, and allowed to fall slowly upon the part. Of late years, the reverse of this has obtained in various quarters, and *warm water*, applied in cloths, frequently wrung out, or allowed to drip upon the dressings, has been commended. Of this, Prof. N. B. CROSBY, of the Bellevue Hospital, New York, says (*New York Medical Journal*, February, 1876) that its undoubted success is due, first, to the exclusion of air; second, to the soothing effect of warmth and moisture; third, to the fact that the heat favors cell-infiltration; and, finally, and perhaps most important of all, the changing of the water from time to time removes all septic matter, and thus prevents absorption of purulent and putrid elements.

An elevated temperature in the water proves a marked advantage when the vitality is low. The rule of lacerated and contused wounds is to slough to a greater or less extent. The separation of the slough is dependent on cell-infiltration or the formation of granulations, and this is retarded by cold and aided by heat, and the more rapidly this is brought about the more rapidly will adhesive inflammation be set up, and insure the immediate safety of the patient by plugging the capillary vessels and closing the lymphatics.



*Poulticing*, is in fact, a modification of the hot-water treatment. Poultices can be applied to surfaces where it would be impossible to apply the hot water without immersing the whole body, and these can be improved by adding to them charcoal, permanganate of potash, and salicylic or carbolic acid. The poultices should be generous in size, and changed frequently.

By warm water, a temperature of 90° to 100° Fahrenheit is intended.

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## EARTH DRESSINGS.

The introduction of earth dressings in modern surgery is due to Dr. ADDINELL HEWSON, of Philadelphia. He takes clean, dry, well-sifted subsoil earth, and applies it liberally to the wounded part. The earth should be thoroughly dried in the sun, and all lumps and gravel sifted out of it. It is dusted over the wound in a layer varying from one-fourth of an inch to one and one-half inches, as occasion may require. It should be changed once, twice, or three times in the twenty-four hours, according to the discharge, as it should not be allowed to remain after these have moistened it.

The immediate effect of this dressing is cool and pleasant; it is one of the cheapest and most efficient deodorizers; it produces a marked absence of inflammatory redness around the wound; the granulations are healthy, and the discharge moderated. It has not been shown, however, that it exerts any hastening influence on the healing process.

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## ANTISEPTIC DRESSINGS.

Since the degeneration of pus has been generally attributed to a septic or fermentative impulse imparted to it by the presence of organic germs derived from the circumambient atmosphere, the search for and application of modes and agents to prevent the access or destroy the vitality of these germs constitutes a prominent feature in surgical therapeutics.



Among the best known antiseptics the following may be mentioned:—

Chlorine-water, in its concentrated form (one to ten); it is rather painful, and when diluted its application must be frequently renewed.

Iodine, a very active antiseptic, and especially useful against diphtheria and hospital gangrene; the objection to it is that the applications must be frequently renewed, and are then likely to cause acute inflammation.

Glycerine, a very useful and cleanly dressing.

Alcohol, theoretically excellent, but its rapid evaporation is a great objection. GOSSELIN uses it for all wounds of the head and face, to prevent suppuration, and favor union by first intention.

Camphor, only slightly soluble in water, and is not a deodorizer.

Olive oil, useful to prevent inoculation by falling spores, but is useless after infection has taken place.

Subacetate of lead, very highly recommended; even in a weak solution it kills bacteria, and has a slight astringent effect upon the surface of the wound, but it is not a good deodorizer.

Carbolic acid has become very popular of late years; BILLROTH thinks it is in no way superior to many others; its odor is very offensive to some, and when dissolved in oil it ruins the dressings and bedding.

Salicylic acid, much lauded, but probably less active than carbolic acid.

Sulphurous acid, a cheap, painless and efficient antiseptic in many cases. The various *sulphites* depend on this acid for their efficacy.

Boracic acid, an agreeable, cooling application, increasing in favor.

Permanganate of potash, 3j to water f.3j, is an excellent deodorizer, but not much of a disinfectant, and stains the bedding, etc.

Chloral hydrate, the use of which as a local application seems on the increase. It is quite as active as boracic acid, and has no unpleasant flavor.

The most eminent living teacher of antiseptic surgery is

#### PROF. JOSEPH LISTER, OF EDINBURGH.

The antiseptics he prefers are carbolic and boracic acids. His operations are performed under a spray of a solution of carbolic



acid, one part to forty of water. The saturated solution, one to twenty, is used for purifying the epidermis of a part about to be operated on, while in wounds seen several hours after the accident a solution of carbolic acid, one part, to pure alcohol five parts, is introduced into the recesses of the wound by means of a syringe and a gum-elastic catheter.

The formulæ for the various antiseptic preparations of this eminent teacher are as follows :—

*Carbolized Oil :—*

1204. R. Acidi carbolicæ crystalisati,  $\overline{3j}$   
 Olei lini, f.  $\overline{3iv}$ .  
 Dissolve.

*Carbolized Putty :—*

1205. R. Olei carbolati (above), f.  $\overline{3iij}$   
 Cretæ preparatæ, q. s.  
 To make a firm paste.

*Antiseptic Lac Plaster :—*

1206. R. Shellac,  $\overline{3iij}$   
 Acidi carbolicæ crystalisati,  $\overline{3j}$ .  
 Heat the lac, with one-third the acid, over a slow fire; when completely melted add the remainder, mix, strain and spread.

*Antiseptic Gauze :—*

1207. R. Paraffini,  $\overline{3xvj}$   
 Resinæ,  $\overline{3iv}$   
 Acidi carbolicæ crystalisati,  $\overline{3j}$ .  
 Melt together. Muslin gauze is dipped in the melted mass, and well wrung or pressed while hot.

*Antiseptic Adhesive Plaster :—*

1208. R. Acidi carbolicæ crystalisati,  $\overline{5j}$   
 Aquæ bullientis, f.  $\overline{3viiij}$ . M.  
 Dip ordinary strapping in this and let it dry.

1209. R. Acidi boracici,  $\overline{3j}$   
 Ceræ albæ,  $\overline{aa}$   
 Paraffin,  $\overline{3j}$   
 Olei amygdalæ dulcis,  $\overline{aa}$   $\overline{3ij}$ .

Melt the wax and paraffin, stir in a warm mortar till the mass thickens, then cool, and reduce in a cold mortar to a soft ointment. Apply on fine rags to exposed ulcerous surfaces.



1210. R.	Plumbi oxidi,	℥iv	
	Acidi carbolici,	℥vj	
	Olei olivæ,	f.℥iv	
	Ceræ,	℥j.	M.

This plaster is to be prepared without water, and spread upon a thin cloth. To be employed as a dressing for wounds which need disinfection.

Professor LISTER employs boracic acid in two forms: boracic lint, a dressing material, almost non-stimulating, for wounds, where the crystals of the antiseptic in the lint are only dissolved gradually by the discharges of the wound; and a lotion of boracic acid (three to five per cent.), partly for washing, and partly as a spray. The antiseptic power is less than that of carbolic acid, and stimulates the tissues less, but, being non-volatile, it is not so evanescent. LISTER, therefore, prefers this substance for superficial wounds, such as those of plastic operations, in the treatment of ulcers, and, lastly, for the purpose of the healing of loose portions of skin on granulating surfaces.

In the case last mentioned the method is the following:—After the sore is brought into an aseptic condition, it is carefully washed with boracic-acid solution, then the pieces of skin to be transplanted are placed upon the surface of the granulations, under protection of the boracic spray. Without fixing specially the small portions of skin, a piece of protective is laid over the wound after it has been dipped into boracic acid solution; upon this a layer or two of boracic lint similarly treated; the whole fixed with a gauze bandage. As the discharge is scanty, the dressing may be left unchanged two, three, or four days.

In regard to chloride of zinc, Professor LISTER employs a solution, forty grains to the ounce of water, and with the following indications:—

1. For wounds which have been for a longer or shorter time exposed to the influence of atmospheric air, and in which a superficial putrefaction of the tissues has occurred, in order to be able, after the destruction of the products of putrefaction and the infected particles of the tissues, to regard the wounds as aseptic. To this class belong superficial surfaces of ulcers, with sloughing of granulations and stinking discharges.

2. Also for recent wounds, before putting on the first dressing, when the wound contains some focus of putrefaction, such as sinuses communicating with a joint subjected to excision. In such a case,



the sinuses are also injected with the solution, in the hope of correcting the putrefaction of their contents, though the attainment of this is always uncertain.

3. He employs the chloride of zinc for recent wounds in the neighborhood of the different cavities of the body, and where the continual bathing of the wound with the putrid secretion of the cavity would render infection of the former possible.

Of the numerous other dressings which depend largely for their virtues on the antiseptic principle, the following formulæ give abundant room for selection.

## DR. MINNICH, OF VENICE.

1211. R. Sodæ sulphitis,  $\bar{z}i$   
 Glycerinæ, f.  $\bar{z}i$   
 Aquæ destillatæ, f.  $\bar{z}ix$ . M.  
 As a lotion for dressing wounds and in erysipelas.

## DR. ROCCO GRITTI, OF MILAN.

1212. R. Sodii sulphitis,  $\bar{z}ijss$   
 Amyli pulveris,  $\bar{z}ij$   
 Glycerinæ, f.  $\bar{z}ijss$ .

Mix and warm in a water-bath until the præparation shall have acquired the consistence of a soft cake. Used to disinfect wounds, diminish the secretion of pus, and stimulate cicatrization.

## MR. THOMAS KIRKLAND, LONDON.

1213. R. Tincturæ myrrhæ,  
 Liquor calcis,  $\bar{a}\bar{a}$  f.  $\bar{z}ij$ . M.  
 As a lotion in unhealthy wounds.

1214. R. Extracti cinchonæ,  $\bar{v}iv$   
 Adipis,  $\bar{z}x$ . M.  
 To be applied by means of charpie to gangrenous wounds. Internally, preparations of cinchona and a tonic regimen.

## PROF. DEMARQUAY, PARIS.

1215. R. Potassii permanganatis,  
 Calcii carbonatis pulveris,  
 Amyli pulveris,  $\bar{a}\bar{a}$   $\bar{z}j$ . M.  
 A painless dressing for fetid wounds.

1216. R. Potassii permanganatis, gr. xv  
 Aquæ destillatæ, Oij. M.  
 A wash for infected wounds.

## DR. ADOLPH ADRIAN, OF GIESSEN.

1217. R. Picis liquidæ,  $\bar{z}iss$   
 Ovi vitelli,  $\bar{z}ijss$   
 Aquæ, f.  $\bar{z}xij$ . M.

This mixture may be diluted with water, and serve to inject and wash the surface of wounds.



1218. R. Picis liquidæ,  
Ovi vitelli, āā ʒijss  
Glycerinæ, f.ʒv. M.

This preparation, which has the consistence of an ointment, does not adhere to the skin like the ordinary tar ointment. It may be diluted with water, and employed for the dressing of gangrenous wounds and rebellious ulcers.

DR. LEMAIRE, PARIS.

1219. R. Alcoholis,  
Acidi carbolici crystalisati, āā q.s.  
Apply locally in poisoned wounds, small-pox pustules, etc.

1220. R. Olei olivæ, f.ʒvij  
Acidi carbolici crystalisati, ʒj. M.  
Use as an antiseptic liniment.

DR. LEONARD CANE, LONDON.

1221. R. Acidi boracici,  
Aquæ bullientis, q.s. ad. saturandum.  
This may be used as a lotion, with lint, cottonwood, etc.

DR. LEWIS D. MASON, BROOKLYN.

*Carbolated bran.* Add crude carbolic acid slowly, stirring at the same time, until it is an adherent mass. Used as a "germ-proof" dressing.

*Carbolated earth* is made by adding 2 parts of crude carbolic acid to 100 parts of dry, sifted earth.

M. MAGNIS-LAHENS, OF TOULOUSE,

Adds charcoal to coal-tar (33 per cent. of the latter), and thus obtains a light and porous powder, which does not irritate wounds, and which is easily washed off with cold water. This combination is a very useful mixture of two antiseptic substances. The charcoal absorbs the gases formed by fermentation, coagulates the albumen, and prevents its decomposition; thus effectually assisting the carbolic acid contained in the coal-tar.

DR. P. H. WATSON, ROYAL INFIRMARY, EDINBURGH.

This surgeon employs *chloral* as his antiseptic, and states (Edinburgh *Medical Journal*, Feb., 1876) that it is quite as efficient as carbolic acid, has no such unpleasant odor, and deadens pain promptly. He employs it in four forms—

1. A lotion of 5 to 40 per cent. in water, for cleansing away discharges around a wound, cleansing sponges used in operations, and analogous purposes.

2. An ointment composed of concrete paraffin, white wax (Scotch,



and almond oil, to which 1-12th to 1-8th of chloral is added, while the other ingredients are liquefied by heat. The components of the ointment should at once be rubbed together, covered, to prevent the evaporation of the chloral, and cooled to a concrete form as rapidly as may be. It is afterward rubbed up with a few drops of the solution of chloral, to disintegrate it, and prevent its crystalline form being reassumed.

3. An external excipient dressing is made by soaking lint in a solution of chloral (ʒj ad. ʒj). It is then wrung out of this and carefully dried. Care is necessary to avoid long exposure or a high temperature, as this volatilizes the chloral.

4. Lint soaked in a solution of chloral in olive oil (1-8), employed to fill cavities, such as those left in some excisions, and to employ as compresses when it is desired to prevent bleeding from the cut surfaces in operations for the removal of *dead* bone.

In some cases, when the chloral appears to act as an irritant, even when carefully prepared, it may be necessary to interpose some impermeable material between the line of operation and the dressing.

DR. JOHN BALFOUR, L. R. C. S., EDINBURGH.

Through the *Edinburgh Medical Journal*, 1874-6, this surgeon has several times præconized the following as a most excellent antiseptic lotion :—

1222.	R.	Acidi sulphurosi,	f.ʒj	
		Aquæ destillatæ,	fʒxij.	M.

It at once alleviates pain, minimizes suppuration, is easily applied, and facilitates dressing the wound, while it costs almost nothing. When the fingers are the parts injured, a large teacup is filled with the wash and put by the patient's side, and into this the injured part, covered with the thinnest rag to be had, is dipped as often as desired. Should the injured part be the hand or any other part of the body, it is supported on a pillow covered with gutta-percha tissue or oil-skin, and the wash is applied by means of a little tow, which is allowed to remain in the cup.

In the Throat Hospital, London, as a stimulant and antiseptic gargle and local application, they use the following *aqua acidi sulphurosi* :—

1223.	R.	Acidi sulphurosi,	ʒj	
		Aquæ destillatæ,	f.ʒx.	M.



## LOCAL ANÆSTHESIA.

DR. B. W. RICHARDSON, LONDON.

This distinguished observer introduced the "spray-producer" which bears his name. He recommended that it should be used with rectified, perfectly neutral *sulphuric ether*, the spray thrown from a distance of two or three inches upon the skin.

Dr. LETAMENDI has added the valuable suggestion that after about two minutes an incision, a half inch in length, be made in the centre of the reddened part, not deeper than the papillary layer of the cutis. This produces an "anæmic zone," and then the spray, being again thrown on the part, in a few minutes the anæsthesia is complete.

*Carbon bisulphide* is an active local anæsthetic. A pledget of cotton, saturated with it and applied to the painful part, will rapidly benumb the nerves of sensation.

Dr. S. R. NISSLEY (*Journal of Materia Medica*, July, 1871) found that the following is a successful local anæsthetic:—

1224. R. Rhigolene,  
Oil of peppermint, *equal parts.*

The observation of Dr. HORWATH, of Kiew, that absolute alcohol, at a temperature of 20° Fahr., is a most efficient local anæsthetic, deserves to be remembered. He finds it far superior to cold ether, or ice, or the spray of volatile substances. The part may be immersed in it, or it may be poured upon it by an irrigator.

## BITES AND STINGS.

PROFESSOR HALFORD, M.D., OF AUSTRALIA.

The treatment recommended by this surgeon in poisonous bites from venomous serpents, spiders, etc., is the injection of liquor ammoniæ fortior, diluted with two or three times its bulk of water. Of this mixture, 20 to 30 drops are to be injected into one of the large veins, as near to the bite as possible. If the symptoms are relieved, but the patient seems still in danger, the injection may be repeated as soon as the operator deems it prudent.



As used by Dr. A. S. TODD, of Virginia (*Trans. Va. State Med. Soc.*, 1872), the liquor ammoniæ is mixed with flaxseed meal or slippery elm bark, to make a cataplasm, and applied to the part; while internally the patient was given liquor ammoniæ aromaticus, f.ʒj, in a wineglass of water, every three hours.

The above is the only specific treatment for mortal bites. When it cannot be carried out, the course to be pursued is to keep the patient alive by copious stimulation and artificial respiration. In rattlesnake bite, for instance, a gill of whisky should be given every ten or fifteen minutes until signs of intoxication supervene. Of course, in the meanwhile, efforts should be made by *washing*, *suction*, *ligature*, and *cauterization*, to prevent the poison entering the system.

Prof. BRAINARD, of Chicago, made a series of experiments with the following:—

1225. R. Iodinii,	gr.v	
Potassii iodidi,	gr.xv	
Aquæ destillatæ,	f.ʒj.	M.
Use as hypodermic injection.		

His directions are to place a cupping glass over the wound and pass the nozzle of the syringe beneath the skin under the edges of the cup, throwing in sufficient of the above to "infiltrate the tissues."

## BURNS AND SCALDS.

PROF. S. D. GROSS, M. D.

1226. R. Plumbi carbonatis,	ʒij
Olei lini,	q. s.
To make a fluid of the consistency of thick cream.	

This is ordinary white-lead paint. The surface should be thickly coated with it.

DR. JOHN H. BRINTON, PHILADELPHIA.

1227. R. Aquæ calcis,	f.ʒviij	
Olei amygdalæ amaræ,	gtt.ij.	M.
Beat up f.ʒij of this with ʒiv of well-washed lard, and apply freely over the burned surface, on soft cotton cloth, changing twice a day.		



This is a cooling, agreeable application, free from the unpleasant odor of carron oil.

DR. I. H. POOLEY, ENGLAND.

1228. R. Ferri sulphatis,  $\overline{3j}$   
Aquaë,  $\overline{Oj}$ . M.

Apply about three days after the burn or scald has taken place, when the suppurating stage has commenced.

DR. MADISON MARSH, LOUISIANA.

1229. R. Aluminis,  $\overline{3j}$   
Aquaë,  $\overline{f. \overline{3} viij}$ . M.

This is a saturated solution of alum. It is an excellent application to fresh burns and scalds. Cloths should be soaked in it and applied to the wound.

PROF. GORDON BUCK, M. D., OF NEW YORK.

1230. R. Acaciæ pulveris,  $\overline{3iv}$   
Tragacanthæ pulveris,  $\overline{3ij}$   
Syrupi fusci,  $\overline{Oj}$   
Aquaë bullientis,  $\overline{q. s.}$  M.

To make a mixture of the consistence of honey.

This mixture was long popular in some of the New York hospitals, as a local application in burns.

MR. CHARLES RICE, OF PHILADELPHIA.

1231. R. Best white glue, 15 oz  
Cold water, 2 pints.

Soften, melt, and add—

- Glycerine, 2 oz  
Carbolic acid, 6 drachms.

Heat in a water bath.

This can be applied with a broad brush. It hardens in about two minutes, leaving a smooth, flexible, transparent skin.

DR. A. D. BINKERD, OF PENNSYLVANIA.

1232. R. Ceraë flavæ,  $\overline{3j}$   
Olei lini,  $\overline{f. \overline{3} iij}$   
Acidi tannici,  $\overline{3j}$   
Bismuthi subnitratiss,  $\overline{Oj}$ .

Heat the wax, add the oil, and stir; when cold, add the acid, and last the bismuth. Apply on lint or rags.

1233. R. Pulveris iodoformi,  $\overline{Oij-iv}$   
Cerati,  $\overline{3j}$ . M.

A soothing anæsthetic ointment, in burns and scalds. Five or six drops of carbolic acid may be added.



1234. R. Chlorali hydratis.  $\overline{3j}$ -iss  
 Glycerinæ,  $f.\overline{3}$ ss  
 Aquæ destillatæ,  $f.\overline{3}$ vj. M.  
 A soothing application to burns, etc., when there is a fetid discharge.  
 It smart at first, but soon produces local anæsthesia and diminution  
 of fetor.

MR. EDWARD KENTISH, LONDON.

The plan of treatment, in severe burns, recommended early in this century by this surgeon has lately been revived with much success. The injured surface is first washed with *oil of turpentine*, and then an ointment is made by thinning basilicon ointment with turpentine, which is applied to the burned surface on soft rags.

W. R. E. SMITH, M. D., INSPECTOR-GENERAL, BRITISH ARMY.

When suppuration has commenced, the parts should be cleansed, washed with carbolated oil, and then dusted, from a flour dredger, with the following:—

1235. R. Zinci oxidi,  $\overline{3j}$   
 Magnesiæ carbonatis, aa  $\overline{3j}$   
 Pulveris amyli,  $\overline{3ij}$ . M.  
 This forms a firm incrustation, like a scab, under the protection of which the parts heal rapidly. It should be applied whenever the moisture appears.

## FROST-BITE.

PROF. CAZENAVE, PARIS.

1236. R. Hydrargyri ammoniati, gr.ivss  
 Chloroformi,  $\overline{m}$ v  
 Cerati,  $\overline{3j}$ . M.  
 Apply morning and evening. If the swelling be considerable, and if the chilblains are ulcerated, cover with chamomile cataplasms, and dress with opiated cerate.
1237. R. Extracti opii, gr.ijj  
 Extracti krameris, gr.xv  
 Glycerinæ,  $f.\overline{3ij}$ ss  
 Saponis,  $\overline{3ij}$ ss. M.  
 To be rubbed on morning and evening.
1238. R. Aluminii et potassii sulphatis,  $\overline{3ij}$   
 Aceti,  $\overline{3ij}$   
 Alcoholis diluti, aa  $f.\overline{3}$ vj. M.  
 To be applied morning and evening, on non-ulcerated chilblains.



1239. R. Camphoræ, Div  
Alcoholis diluti, f.ʒiij  
Glycerinæ, f.ʒv. M.  
Apply several times a day, to non-ulcerated chilblains.

PROF. A. GIACOMINI, UNIVERSITY OF PADUA.

1240. R. Plumbi acetatis, ʒj  
Adipis, ʒj  
Aquæ lauro-cerasi, f.ʒij. M.  
A useful pomade, applied morning and evening, to chilblains.

1241. R. Acidi muriatici diluti, f.ʒiss  
Balsami peruviani, ʒss  
Spermaceti, ʒj  
Ceræ albæ, ʒss  
Olei amygdalæ dulcis, ʒj. M.

1242. R. Tincturæ benzoini, f.ʒj  
Glycerinæ, f.ʒij  
Olei lini, f.ʒss  
Cerati, ʒij  
Spiritûs lavandulæ, ℥xx.  
Mix with care. To be used to anoint, morning and evening, ulcerated chilblains.

1243. R. Acidi sulphurosi, f.ʒiij  
Glycerinæ, ʒj  
Aquæ, āā f.ʒj. M.  
A good wash for chilblains. One application is generally sufficient.

1244. R. Acidi carbolicī, ʒj  
Tincturæ iodinī, f.ʒij  
Acidi tannici, ʒij  
Cerati simplicis, ʒiv. M.  
Make an ointment.

1245. R. Tincturæ opii,  
Tincturæ croci,  
Spiritûs ætheris nitrici; equal parts. M.  
Apply locally, by brushing on the parts.



## SPRAINS AND BRUISES.

DR. N. GALLOIS, PARIS.

1246. R. Sodæ boratis, ℥ij  
 Alcoholis diluti, f.℥iss  
 Aquæ destillatæ, f.℥iij. M.

To be applied in lotion several times a day, on bruises with excoriated skin.

LONDON HOSPITALS.

1247. R. Liquoris ammoniæ acetatis, f.℥ss  
 Aquæ, f.℥iss. M.

Use as a refrigerant lotion.

1248. R. Extracti eonii, ℥ij  
 Liquoris plumbi subacetatis diluti, f.℥xij. M.

As a cooling and anodyne lotion.

The following are useful lotions :—

1249. R. Ammonii chloridi, ℥ijss  
 Camphoræ, ℥ij  
 Saponis, ℥iss  
 Alcoholis diluti, f.℥v. M.

Immerse a piece of flannel in this solution, and retain it upon the painful joint by means of a bandage.

1250. R. Ammonii muriatis, ℥ij  
 Spiriti vini rectificatæ, aa f.℥ij. M.  
 Aquæ,

An excellent cooling and discutient application in sprains, bruises, orchitis, and local external inflammations generally.

1251. R. Arnicæ floræ, ℥ij  
 Aquæ bullientis, Oj. M.

This preparation is preferable to the tincture of arnica as a vulnerary, as the latter is occasionally followed by eczema.



## II. SURGICAL DISEASES.

*Cancer—Carbuncles and Furuncles—Carious Teeth—Epistaxis—Fissure of the Anus—Goitre—Hemorrhoids—Hospital Gangrene—Nævi—Necrosis—Orchitis—Ozæna—Prolapsus Ani—Prostatic Enlargement—Pruritus Ani—Spermatorrhæa—Synovitis—Tumors—Ulcers—Varicose Veins.*

### CANCER.

The therapeutic treatment of cancer has been in three directions, by internal medication, by local external applications, and by injections into the substance of the growth.

Of internal remedies, *conium*, lauded by STÖRCK, of Vienna, still retains the first rank, in spite of theoretical objections to its efficacy. The best preparation is thought by some to be the freshly-prepared *succus conii*. (For formulæ see below.)

*Condurango*, which has fallen wholly into disfavor in this country, has recently received strong testimony in its support, in cancer of the stomach, from various German physicians.

The *phytolacca decandra* has been praised by some American physicians for its alleged power to prevent the development of cancer. Not only is the fluid extract given internally, but the inspissated juice of the leaves is applied in the form of a plaster at the same time, either alone or combined with chloride of zinc and opium.

Sir BENJAMIN BRODIE used to give his cancerous patients *liq. potassæ*, f.ʒj, *thrice daily*. Sir JAMES PAGET, in his "Clinical Lectures," says that he also has followed this treatment, often without effect, "but frequently it has given relief from the burning, aching and bursting pains which have been connected with the cancer." Sir JAMES considers it indicated in the gouty diathesis, and believes that Missisquoi water sometimes does good in a similar manner.

Sir ASTLEY COOPER was wont to attach importance to the exhibition of *ammonia*, especially in uterine cancer. His favorite prescription was:—



1252. R.	Sodæ carbonatis,	gr. xxx	
	Ammoniæ carbonatis,	gr. v	
	Tincturæ calumbæ,	f. 3j	
	Infusi gentianæ compositæ,	f. 3iss.	M.

This amount to be taken thrice daily.

Dr. WASHINGTON L. ATLEE, of Philadelphia, attaches value to the prolonged and even constant use of *arsenic*. After excision of the cancerous growth this drug would seem to have a retarding influence on its reappearance.

In *cancer of the stomach*, Dr. JAMES T. WHITTAKER, of Cincinnati, has reported apparently successful cases from the administration of *bisulphide of carbon*, gtt.ij–iv, in oil of sweet almonds, three times daily; but the improvement he noted may have been owing to the anæsthetic effect of the remedy.

For injections into the substance of the growth, *dilute acetic acid* has been used with unquestioned success in epithelial cancer. Pure *carbolic acid*, injected underneath the cancerous sore, is said by Dr. BARTHOLOW to limit the extension and retard the growth of the disease.

Dr. HASSE, of Berlin, injects *pure alcohol*, to which one per cent. of ether has been added; this he throws, not into the growth itself, but around its edges, thus obliterating the lymphatics. The injections are repeated once every week or every other week.

Dr. WYNN WILLIAMS, of the Samaritan Hospital, London, employs *bromine*, one part to three of pure alcohol, of which gtt.v–x are injected into the tissues by means of a long syringe with a platinum nozzle. The solution develops heat, and should be prepared some time before used. With it he claims striking success in *uterine epithelial cancer*. Dr. BENJAMIN RHETT, of South Carolina, has also used with success (*Charleston Medical Journal and Review*, October, 1874) the following:—

1253. R.	Brominii,	gtt. xij	
	Alcoholis,	f. 3j.	M.

Inject from four to ten drops into the growth, and touch the surface lightly with it.

#### DR. MARSDEN, LONDON CANCER HOSPITAL.

This gentleman, after an experience of over six thousand cases of cancer, considers *arsenic* as superior to any other agent in cancer. He believes that with early treatment nine out of ten cases may be cured. He recommends it in every form of cancer, except the



cystic or colloid varieties—provided that the disease does not exceed four inches square in size—when removal by the knife appears to be the only remedy. Arsenic may be used in this way for cancers in every situation, except the interior of the mouth or nose, localities where the nature of the remedy makes it dangerous. The formula used at the cancer hospital is the following:—

1254. R. Arsenious acid, 3ij  
Mucilage of gum acacia, 3j.

Mix into a paste too thick to run. This is to be spread over the entire surface of the cancer, provided this does not exceed one square inch in size; a bit of dry lint is then placed over the sore, in order to absorb any excess of paste. In the course of an hour the lint becomes dry and hard, and adheres firmly to the parts.

In the course of twenty-four hours some inflammatory action is visible in the tissues immediately adjacent to the cancer. There is often also some pain, but this is not usually severe, and lasts but for a day or two. After the lapse of two or three days, according to circumstances, bread-and-water poultices, changed every few hours, are to be constantly applied over the sore. A distinct line of demarcation is usually to be seen by this time, and the slough gradually separates and comes away, leaving a healthy cup-like depression, varying in depth and size according to the mass removed. Granulation proceeds rapidly, and the case is then treated as a simple ulcer. The slough separates at periods varying from six to thirty days, according to its size. The disease usually comes away entire with the slough; but where this is not the case the paste is to be applied to the remaining portion, as in the first instance, every second or third day, till the desired effect is produced.

MR. C. H. MOORE, MIDDLESEX HOSPITAL, LONDON.

In the article on cancer, by this gentleman, in Holmes' "Surgery," he commends the tinctura ferri chloridi internally. "Iodine, opium, and especially lead, appear the most effective in retarding the growth of the tumor."

1255. R. Plumbi iodidi,  
Pulveris opii, āā 3ij  
Ferri sulphatis exsiccati, 3ss  
Glycerinæ, q. s.

To make a convenient paste. Apply daily to the swelling, so that it will thoroughly moisten the surface.

For tender and painful ulcers, he advises the following:—



1256. R. Fresh stramonium leaves,  $\frac{1}{2}$  lb  
Lard, 4 lbs.

Mix with gentle heat for some time, and strain. Spread on cotton-wool and apply to the part.

## DR. LANDOLFI, OF NAPLES.

1257. R. Brominii chloridi,  $\mathfrak{z}\text{ij}$   
Zinci chloridi,  $\mathfrak{z}\text{ij}$   
Antimonii chloridi,  
Auri chloridi, āā  $\mathfrak{z}\text{j}$   
Extracti glycyrrhizæ,  
Aquæ, āā q. s.

To make a thick paste. To be applied on small portions of linen to the ulcerated surface.

## M. MICHEL, PARIS.

1258. R. Pure sulphuric acid,  $\mathfrak{z}\text{ss}$   
Finely powdered asbestos, q. s.

Make a paste of medium thickness.

This escharotic is said to be efficient in action and not very painful.

The following has been commended by Dr. J. E. NICHOLS (Chicago *Medical Journal*, February, 1875):—

1259. R. Zinci chloridi,  
Pulveris sanguinariæ, āā q. s.

Rub together in the open air, to form a thick paste.

Of this enough is put on cotton-wool to cover the entire surface of the cancer. After two hours remove it, and apply a light poultice. The next day remove the eschar as much as practicable, and again apply the paste and the poultice. This should be continued until the malignant growth is replaced by healthy granulations.

## J. W. BRIGHT, M. D., LEXINGTON, KY.

1260. R. Santali pulveris,  $\mathfrak{z}\text{j}$   
Zinci chloridi,  $\mathfrak{z}\text{ij}$   
Podophylli extracti,  $\mathfrak{z}\text{j}$   
Amyli,  $\mathfrak{z}\text{j}$   
Aquæ, q. s.

To form a thick paste. Apply on a piece of cotton cloth, removing once a day for three or four days. Then poultice the part.

## LONDON HOSPITALS.

1261. R. Zinci chloridi,  $\mathfrak{z}\text{ij}$   
Antimonii chloridi,  $\mathfrak{z}\text{ij}$   
Amyli,  $\mathfrak{z}\text{iv}$   
Glycerinæ, q. s. M.

Powdered opium may be added, to lessen the pain caused by this caustic, which is employed with success to destroy cancerous tumors.



1262. R. Extracti belladonnæ,  $\bar{z}^{ss}$   
 Acidi hydrocyanici diluti, f.  $\bar{z}j$ -ij  
 Glycerinæ, f.  $\bar{z}j$   
 Aquæ destillatæ, Oj. M.

One fluid ounce of this solution is mixed with from one to three fluid ounces of distilled water, and compresses dipped in this mixture are applied to the cancerous tumors as a soothing lotion.

1263. R. Opii pulveris,  $\bar{z}j$   
 Extracti conii,  $\bar{z}ij$   
 Acaciæ pulveris, q. s. M.

Divide into forty pills. One or two to be given in the evening, to combat the pains of cancer, which cannot be operated on.

1264. R. Conii foliæ,  
 Adipis, āā  $\bar{z}^{iss}$ . M.

The conium leaves, which should be fresh, are boiled over a slow fire, in the lard, until they become friable, and then filter. This pomade is to be employed in frictions on cancerous tumors, at the same time that stramonium is given internally. If fresh conium leaves cannot be obtained, the pomade may be made with the extract of conium and lard.

## CARBUNCLES AND FURUNCLES.

1265. R. Aquæ chlorinii, f.  $\bar{z}^{ss}$ .

This amount, given three times a day, has been highly commended in furunculoid disease by Dr. T. N. WYLIE, of Texas (*Medical and Surgical Reporter*, May, 1873).

1266. R. Acidi sulphurici diluti, gtt. xx.

This amount to be given in a glass of water three times a day. It is recommended in the *Medical and Surgical Reporter*, 1873, by Dr. MADISON MARSH, as almost a specific in furuncular disease.

PROF. SYDNEY RINGER, OF LONDON.

This excellent authority highly extols, in anthracosis and furunculosis, the internal use of the sulphides, as:—

1267. R. Calcii sulphidi, gr.  $\frac{1}{10}$ .

This amount in a pill, five or six times daily.

For a local application to carbuncles and abscesses, he has found nothing give greater relief than this:—

1268. R. Extracti belladonnæ,  
 Glycerinæ, āā q. s.

Make an ointment and apply to the part.



## M. DE SAVIGNAC, OF PARIS,

In obstinate furunculosis, employs the alternative use of sulphate of soda and arsenic. The latter is pushed to its constitutional effect, while the former is used as an occasional purgative.

1269. R. Tincturæ florum arnicæ, f.3j  
Acidi tannici,  
Acaciæ pulveris, āā ʒss. M.

Paint boils with this every fifteen minutes, till a thick coat is on them, to abort them (Dr. C. B. HALL, *Cincinnati Lancet and Observer*, 1873).

## M. CEZARD, PARIS.

This author, in 1874, stated before the Paris Academy of Sciences that malignant pustule should be treated in the commencement by the incision of the eschar, and the application to the seat of the disease of compresses soaked in a  $\frac{1}{100}$  solution of iodine and iodide of potassium which will in a short time, have penetrated, by imbibition and absorption, to all parts of the viruliferous tissues, and will thus soon produce a rapid and radical cure. There will be little if any loss of substance. It has been found by experiment that a  $\frac{1}{2000}$  solution of this liquid will soon destroy the virulence of anthracose fluids without the organism, and a much weaker solution can prevent and even destroy its virulence within the organism.

## DR. JAMES T. HEADY, OF KENTUCKY.

Make a crucial incision about one line in depth, at right angles, entirely across the discolored parts, where death or partial death has taken place. Into these incisions, along their entire extent, apply some finely-powdered corrosive chloride of mercury. The quantity in no case must exceed one-half grain, otherwise disagreeable or dangerous results may follow. After the incision and the application of the chloride, a poultice, or resin cerate on lint, should cover the parts affected. Within twenty-four hours afterward a complete line of demarcation will have been formed, and the parts within that line will be insensible, hard, dry, and resembling rotten wood. The slough will separate in a few days, leaving a healthy granulating surface.

Some physicians have reported benefit from:—

1270. R. Potassæ permanganatis, gr. xxx  
Aquæ destillatæ, f.3j. M.

Use as a dressing.



## MR. GEORGE COWELL, OF LONDON.

This writer (*Practitioner*, February, 1872) recommends commencing the treatment by applying nitrate of silver freely over the surface of the carbuncle, repeated, if necessary, once or twice after intervals of two days. After the application, a small pad of dry lint is bandaged over the part. Later on he uses poultices and carbolic-acid lotion.

## DR. A. WAHLTUCH, LONDON.

1271. R. *Liquoris plumbi subacetatis*, f.ʒij  
*Acidi sulphurici*, mxx  
*Aquæ*, Oj. M.  
 Apply locally in anthracose swellings and gangrenous ulcerations.

## DR. L. DUNCAN BULKLEY, OF NEW YORK.

1272. R. *Sodæ hyposulphitis*, gr. xxx  
*Aquæ*, f.ʒiv. M.  
 This amount three or four times daily, on an empty stomach, in furunculosis.

Dr. BULKLEY considers this a most valuable remedy to prevent the tendency to boils. When it fails, which has rarely happened in his hands, he gives large doses of quinine.

## DR. ISAIAH THOMAS, WEST CHESTER, PA.

This physician has found a decoction of the black alder, *Prinos verticillatus*, of undoubted advantage in carbuncle and anthracose disease. Two ounces of the bark to three pints of water, boiled to a quart, is a proper proportion, of which a wineglassful three times a day may be taken.

## DR. DELLOUX, FRANCE.

1273. R. *Sodii arseniatis*, gr. iiss  
*Aquæ destillatæ*, f.ʒviss. M.  
 A teaspoonful in the morning before eating, and in the evening before the last meal, to persons affected with furuncles.

The author administers this arsenical solution during three weeks; he then purges the patient with from five drachms to an ounce of sulphate of sodium. For drink, an infusion of sarsaparilla (ʒiv to the pint). *Diet*, non-nitrogenous, in which the fresh fruits ought largely to enter; complete abstinence from acids and alcoholic stimulants. When the furuncles are hard and slow, the following ointment may be employed:—



1274. R. Sulphuris loti, gr.xv  
 Camphoræ pulveris, 3j  
 Cerati, 3vij. M.

The application of tincture of iodine at the début of an inflammatory furuncle sometimes causes it to abort. Feeble sulphur baths, with the addition of gelatine, and as well as bran and starch baths, are useful.

## CARIOUS TEETH.

1275. R. Tincturæ aconiti, f.3ss  
 Tincturæ benzoini, f.3ij. M.

Immerse a piece of cotton in this liquid, and introduce it into the cavity of the aching tooth.

1276. R. Chloroformi,  
 Creasoti,  
 Vini opii, āā f.3ss  
 Tincturæ benzoini, f.3ijss. M.

Immerse a piece of cotton in this liquid, and introduce it into the cavity of the aching tooth.

1277. R. Chloroformi, f.3iss  
 Vini opii, f.3ss  
 Tincturæ benzoini, f.3ijss. M.

To be introduced by means of cotton into the cavity of the aching tooth.

1278. R. Tincturæ arnicæ, f.3v  
 Vini opii, f.℥xv  
 Aquæ destillatæ, f.3x. M.

This mixture is to be held in the mouth for several minutes, to relieve the pains occasioned by general toothache.

A favorite odontalgic with Philadelphia dental surgeons is—

1279. R. Tincturæ iodinii,  
 Liquoris plumbi subacetatis diluti,  
 Tincturæ opii,  
 Chloroformi, āā f.3ij. M.

Apply upon cotton.

Another highly lauded preparation is—

1280. R. Atropiæ sulphatis, gr.j-ij  
 Aquæ, 3j. M.

Apply as above.



## EPISTAXIS.

1281. R. Ergotæ extracti fluidi, q. s.  
Twenty drops three times a day, in obstinate recurrent epistaxis.

1282. R. Olei terebinthinæ, gtt.xx-xxx  
To be given *pro re natâ*, in capsule, milk, or emulsion.

This very valuable remedy for persistent or recurrent epistaxis rarely fails to cure the most obstinate cases.

1283. R. Infusi digitalis, f.℥ij  
Tincturæ krameriæ,  
Extracti fluidi ergotæ, āā f.℥j. M.

A tablespoonful as required; given twice a day, it will maintain a constant physiological effect. Recommended by Dr. R. BARTHOLOW.

## FISSURE OF THE ANUS.

WILLIAM ALLINGHAM, F. R. S., LONDON.

This surgeon states that he has performed many cures without other treatment than the following ointment:—

1284. R. Hydrargyri subchloridi, gr. iv  
Pulveris opii, gr. ij  
Extracti belladonnæ, gr. ij  
Unguenti sambuci, ℥j. M.  
To be applied frequently; the bowels to be kept soluble.

An occasional *light* touch with the nitrate of silver is useful.

PROF. VELPEAU, PARIS.

1285. R. Unguenti hydrargyri, ℥ijss  
Unguenti benzoini,  
Ceræ albæ, āā ℥j  
Butyri cocoæ, ℥iv. M.

Divide into twelve *suppositories*. These are particularly useful in venereal fissures.

M. TARNIER, PARIS,

This surgeon takes small pledgets of cotton-wool, sprinkles them with powdered iodoform, and introduces them into immediate proximity to the fissure. They produce a rapid and gratifying effect.



## DR. ROLLET, PARIS.

1286. R. Glycerinæ, f.℥ss  
 Amyli, ʒij  
 Zinci oxidi, ʒi. M.

Mix the glycerine and starch, warm gently in a porcelain capsule, stirring until the mass jellifies, and then add the oxide of zinc.

This glycerite is particularly advised by Dr. ROLLET in the fissures of the anus which exist in persons who have had chancres. These fissures cicatrize very slowly, because of the constant contact of the fecal matter. Hence they should be cauterized from time to time with nitrate of silver, and afterward dressed with the glycerite of oxide of zinc.

1287. R. Acidi tannici, gr.xv  
 Glycerinæ, f.℥ss. M.

A tent immersed in this solution is to be introduced, morning and evening, into the rectum.

As the glyceritum acidi tannici of the *United States Pharmacopœia* is four times the strength of this solution, it may be ordered in its place, diluted with three parts of glycerine.

1288. R. Hydrargyri chloridi mitis, gr.iv  
 Adipis, ʒi. M.

This is a useful pomade in fissures of the anus of but slight extent. The affected part is to be washed with warm water and the ointment lightly applied, without friction.

## GOITRE.

## PROF. A. LÜCKE.

This author recommends injecting into the parenchyma of the tumor an alcoholic solution of iodine :—

1289. R. Iodinii, ʒj  
 Alcoholis, f.℥x. M.

Ten to fifteen drops of this to be injected every ten days.

The puncture should be firmly pressed with the finger after the needle is withdrawn, and the wound closed with adhesive plaster.



PROF. S. D. GROSS, PHILADELPHIA.

Wash the neck thoroughly every night, with warm water and soap, and rub well in—

1290. R. Unguenti hydrargyri biniodidi, 3j  
Cerati simplicis, 3vj. M.

The patient should also take, internally, liquor iodinii compositus, gtt.viiij, in sweetened water, thrice daily.

PROF. J. M. DA COSTA, PHILADELPHIA.

1291. R. Cadmii iodidi, 3j  
Cerati simplicis, 3j. M.

Apply, by thorough friction, every other day.

DR. LUTON, OF RHEIMS, FRANCE.

1292. R. Acidi iodidi, 3j  
Aquæ destillatæ, f.3ss. M.

Inject eight to ten drops in the substance of the tumor, from time to time.

DR. FRIEDERICH OESTERLEN, TUBINGEN.

1293. R. Brominii, gtt.xij-xx  
Adipis, 3j  
Olei limonis, gtt.x. M.

Rub thoroughly over the swelling, from time to time.

## HEMORRHOIDS.

PROF. D. HAYES AGNEW, M. D., PHILADELPHIA.

1294. R. Tincturæ krameriaë, f.3j  
Mucilaginis ulmi, f.3ij. M.

For two injections; one to be thrown up morning and night, in ulcerated hemorrhoids.

1295. R. Zinci sulphatis, gr.iv  
Aquæ carbolicæ, f.3ij. M.

For a wash in external hemorrhoids.

PROF. FORDYCE BARKER, M. D., NEW YORK.

The general prejudice against aloes in piles does not apply, according to this writer, to their occurrence in pregnant women. A frequent prescription with him is:—

1296. R. Pulveris aloës socotrinaë, ad. ʒj  
Saponis castiliensis, ʒss  
Extracti hyoscyami, gr.v.  
Pulveris ipecacuanhæ, M.

To make twenty pills. One morning and evening.



When the tumors descend they should be replaced, and the following applied twice daily:—

- |          |                              |       |    |
|----------|------------------------------|-------|----|
| 1297. R. | Unguenti gallæ compositæ,    | ℥j    |    |
|          | Extracti opii aquosi,        | ℥j    |    |
|          | Liquoris ferri persulphatis, | f.℥j. | M. |

Dr. BARKER considers castor oil one of the most irritating laxatives to hemorrhoids.

WILLIAM ALLINGHAM, F. R. S., LONDON.

The bowels should be kept soluble with the following:—

- |          |                               |            |    |
|----------|-------------------------------|------------|----|
| 1298. R. | Liquoris magnesiæ carbonatis, | ℥ss        |    |
|          | Potassæ bicarbonatis,         | ℥j         |    |
|          | Tincturæ sennæ,               | f.℥ij      |    |
|          | Spiritus ætheris nitrosi,     | f.℥ss      |    |
|          | Aquam,                        | ad. f.℥ij. | M. |

To be taken in the morning, fasting.

The parts to be smeared with—

- |          |                      |    |         |
|----------|----------------------|----|---------|
| 1299. R. | Extracti belladonnæ, |    |         |
|          | Extracti opii,       | āā | ℥ss. M. |

Followed by a warm poultice, if there is much swelling.

In *internal bleeding piles*, Mr. ALLINGHAM strongly recommends the curative powers of persulphate of iron. This may be applied in the fluid form, as:—

- |          |                     |    |           |
|----------|---------------------|----|-----------|
| 1300. R. | Ferri persulphatis, | ℥j |           |
|          | Glycerinæ,          |    |           |
|          | Aquæ,               | āā | f.℥ss. M. |

Or as an ointment:—

- |          |                     |       |    |
|----------|---------------------|-------|----|
| 1301. R. | Ferri persulphatis, | ℥ss-j |    |
|          | Unguenti cetacei,   | ℥j.   | M. |

This, if carefully applied, causes no pain.

PROF. GREENSVILLE DOWELL, M. D., TEXAS.

- |          |                    |       |    |
|----------|--------------------|-------|----|
| 1302. R. | Plumbi acetatis,   | ℥j    |    |
|          | Morphiæ sulphatis, | gr.ij |    |
|          | Argenti nitratis,  | ℥j    |    |
|          | Cerati simplicis,  | ℥j-ij | M. |

Apply a small portion at night, after bathing, and replace the piles. A very successful formula.







1310. R. Antimonii et potassii tartratis, gr.  $\frac{1}{4}$ -ij  
Butyri cocoæ, ßiv. M.  
For one suppository, to recall the hemorrhoidal flux. Aromatic fumiga-  
tions and warm hip-baths should assist the treatment.
1311. R. Pulveris iodoformi, gr. xx  
Butyri cocoæ, ßj. M.  
Make six suppositories. Excellent in tenesmus from painful hemor-  
rhoids.

## HOSPITAL GANGRENE.

PROF. JOSEPH JONES, M. D., OF LOUISIANA.

The following formula has proved useful in hospital gangrene,  
and other diseases of an asthenic typhoid character:—

1312. R. Tincturæ ferri chloridi, f. ßj  
Potassæ chloratis, ßiv  
Quiniæ sulphatis, ßij  
Acidi hydrochlorici, f. ßj  
Aquæ destillatæ, f. ßij.

Dissolve the chlorate in the water, add the hydrochloric acid, then  
dissolve in this mixture the quinine, and finally add the iron. Thirty  
to sixty drops, in water, three or four times a day.

Such a mixture should not be continued for more than two  
weeks. In place of it the following is of great value in gangrenous  
and ill-conditioned wounds:—

1313. R. Ferri et potassæ tartratis, ßj  
Acidi tartarici, ßij  
Quiniæ sulphatis, ßij  
Aquæ destillatæ, f. ßxij.

Dissolve the acid in the water, add the quinine, and last the iron.  
Shake well before using. A tablespoonful in a wineglassful of water,  
thrice daily.

When the iron seems too astringent, the following combination is  
valuable:—

1314. R. Strychniæ sulphatis, gr. ij  
Quiniæ sulphatis, ßij  
Ferri redacti, ßij  
Extracti rhei, ßij. M.

Make one hundred pills. One three times a day.

When there are signs of syphilis or scrofula present, the following



fills the important indication of acting both as a tonic and alterative:—

1315. R.	Syrupi ferri iodidi,	f.℥j
	Tincturæ iodinii,	f.℥ij
	Potassii iodidi,	℥ij
	Syrupi zingiberis,	f.℥vj
	Aquæ destillatæ,	f.℥j.

Dissolve the iodide of potash in the water, add the tincture of iodine, and then mingle with the syrups of iodide of iron and ginger. A teaspoonful in a wineglassful of water three times a day.

As a local application the liberal and thorough application of fuming nitric acid proved most successful in the Confederate service.

#### SURGEON MIDDLETON GOLDSMITH, U. S. A.

This surgeon recommended as the most efficient local application—

1316. R.	Brominii,	f.℥j	
	Potassii bromidi,	℥ij	
	Aquæ destillatæ,	ad. f.℥iv.	M.

To apply to the part as a lotion.

The pure bromide, as a cauterant to the gangrenous surfaces, proved most efficient in the Federal hospitals.

#### DR. A. NETTER, OF RHEIMS.

This surgeon, following DUPUYTREN, has found *camphor*, early applied and in large quantities, in the form of a powder, a "sure cure" for hospital gangrene and phagadenic chancres.

#### PROF. ROBERTS BARTHOLOW.

This writer considers *oleum terebinthinæ* the most efficient application in hospital gangrene. The mortified parts are first removed with the scissors, and the oil is applied directly to the diseased surface by means of a piece of cotton cloth. The sloughing and fetor are checked, and but little pain attends the application.



NÆVI.

In the cure of *nævus*, the means at our disposal may be divided into two classes: first, those by which a scar is avoided; and secondly, those which necessarily leave a cicatrix of greater or less magnitude. The first class aim at the destruction of the texture of the *nævus*, or the coagulation of the blood which it contains, by agents which can be introduced through minute punctures of the skin. The means used are the injection of coagulating fluids, the introduction of setons, the subcutaneous ligature, electrolysis, and the galvanic cautery. Electrolysis, the other method referred to, may be performed in two ways, viz., with and without insulation of the electrodes. With perseverance, the latter is an efficient means. But local injections are much more convenient.

Prof. LISTER advises repeated injections of acidi carbolici,  $\text{m}\nu$ .  
Dr. BIGELOW, of Boston, uses—

1317. R. Argenti nitratis,  
Aquæ destillatæ,                      ʒā      gtt. iij-vj.      M.  
For injection.

Dr. DE SMET, of Brussels, has found that small nævi may often be dispersed by tattooing with croton oil.

Dr. HENRY G. PIFFARD, of New York, expresses the opinion that in the capillary nævus, or "wine-mark," probably the best method of treatment is to paint lightly the surface, or a part of it, if large, with nitric acid. When the cauterized epidermis exfoliates, the nævus should be found to have slightly diminished. The application can then be repeated. It should be done by means of a small probe, around the end of which a little cotton has been wrapped.

In this form of nævi, however, the treatment advocated by Mr. BALMANO SQUIRE, of London, is preferable. He scarifies the affected skin with a series of short incisions, about one-sixteenth of an inch apart, to the depth of nearly dividing the cutis vera. Interposing a piece of white blotting paper, he exercises gentle pressure with the finger for about ten minutes. This checks the bleeding. In a fortnight the surface is healed. If necessary, the operation may then be repeated.



## NECROSIS.

MR. POLLOCK, OF LONDON.

The plan proposed by this surgeon (*Lancet*, May, 1870) in caries and necrosis, and successfully carried out by others, is to expose the diseased bone and apply to it, with a glass brush, a solution of equal parts of sulphuric acid and water; or, a lotion of one part of the strong acid to six of water is kept in constant contact with the part by means of pieces of lint saturated with it. The strength of the acid is gradually raised until it is applied pure.

Dr. EPHRAIM CUTTER, of Cambridge, Mass., has succeeded with a modified form of this treatment, injecting the diseased cavity with the following solution, at first twice a day, afterward once a day:—

1318.	R.	Acidi sulphurici aromatici,	f.℥j	
		Aquæ destillatæ,	f.℥j.	M.

Numerous observers have testified to the great value in such diseases of what is known as "Villate's solution":—

1319.	R.	Liquoris plumbi subacetatis,	f.℥iv	
		Zinci sulphatis,		
		Cupri sulphatis,	āā	℥ij
		Aceti vini albi,		f.℥xxvj.
				M.

This should be used diluted, one part to ten of water, and applied to the part once or twice daily, by means of a sponge and bandage, or injected with a syringe. The solution, when properly made, has a light-green, opaque color. Wine vinegar, not cider vinegar, must be used in preparing it.

Prof. ANDREWS, of Chicago, has obtained excellent results in some cases of carious bones by injecting them thoroughly, through the orifices of the wound, twice daily, with a solution of carbolic acid, ten grains to the ounce.

Of course, whatever local treatment is adopted, it must be backed by tonics, rest, nutritious food, bathing and hygienic surroundings. The internal administrations of the phosphates have been supposed, by some, to hasten the formation of healthy bone.



## ORCHITIS.

MR. GEORGE COWELL, LONDON.

The scrotum over the inflamed gland is wet, and the solid nitrate of silver is equably applied over the whole testicle. A suspensory bandage and rest are enjoined. Pain disappears in from two to six hours, and in a few days the patient is well. Of course, such general treatment as is needed is ordered (*Practitioner*, February, 1872.)

MR. H. G. KNAGGS, ENGLAND.

This gentleman, in the *British Medical Journal*, November, 1875, reports a method of treating orchitis which, he says, he has for many years found very effective. It consists in the more or less constant application, while the patient is resting, of a lotion of tincture arnica and water (one part of the former to six of the latter) to the affected organ; secondly, in rubbing in an embrocation composed of one-third, or even one-half, tincture of arnica and soap-liniment, two or three times a day, along the course of the spermatic cord; and thirdly, in the internal administration of seven-drop doses of tincture of arnica, combined, when there is febrile disturbance, with two-and-a-half-drop doses of Fleming's tincture of aconite and acetate of ammonia. This simple treatment, he says, generally cures the patient in a fortnight or less.

MR. C. H. MOORE, M. R. C. S., MIDDLESEX HOSPITAL, LONDON.

The testicle is first immersed in water as hot as can be borne, and kept in it from ten to fifteen minutes, immediately to be followed by a stream of cold water poured over it from a height for five minutes. The latter causes a certain amount of itching pain, and, by contracting the dartos, corrugates the scrotum, speedily diminishing the size of the testicle, with subsidence of the inflammation and pain, the patient experiencing relief in a very short time. The hot and cold water may have to be repeated two or three times a day for a few days; but frequently the patient is so far recovered in the course of four-and-twenty hours as to be able to follow his usual avocation without any inconvenience, requiring no further treatment beyond the continuance of the suspensory bag.







1325. R. Potassæ permanganatis, 3j  
 Aquæ destillatæ, Oj. M.  
 To correct the fetor.

Dr. WETZLER advises creasote, 3j to cerate 3j, applied to the inner membrane daily, with a camel's-hair brush.

DR. SOBRIER, OF FRANCE.

1326. R. Bismuthi subnitratis, ʒss  
 Sulphuris iodidi, ʒviij  
 Pulveris glycyrrhizæ, ʒj. M.  
 For a snuff in ozæna and chronic nasal catarrh. From ten to fifteen pinches a day should be used.

As a lavation with the nasal douche, we may use salt water, or, what is still better, salt milk (salt 3j, milk Oj), feeble antiseptic washes, etc. They should be used *freely*, a gallon at a time.

PROLAPSUS ANI.

PROF. JOHN CLELAND, GALWAY.

1327. R. Liquoris bismuthi et ammoniæ citratis  
 (Br.), f. ʒss  
 Amyli solutionis, f. ʒij. M.  
 Use as an enema in prolapsus ani. It should be given after the patient is in bed, and the bowel returned.

Another:—

1328. R. Tincturæ ferri chloridi, f. ʒj  
 Aquæ destillatæ, f. ʒj. M.  
 To be divided into five injections. One to be thrown up the rectum three times daily.

PROF. VON LANGENBECK, OF BERLIN.

This eminent surgeon states that he has treated prolapsus ani "with astonishing success" by hypodermic injections of a solution of ergotin (five to fifteen parts to one hundred of distilled water). He replaces the bowel, and inserting the point of the syringe about three centimètres in depth in the cellular tissue, throws in from one to two grains of ergotin. This should be repeated every three or four days for three or four weeks, any hard fecal masses in the bowels being first removed by a simple injection.



## PROSTATIC ENLARGEMENT.

DR. F. MAGENDIE, PARIS.

As *enlargement of the prostate* is a so frequent and annoying affection, which does not admit of cure by the knife, our attention is the more drawn to therapeutic measures. Dr. MAGENDIE believes that muriate of ammonia has a decided effect in reducing the gland. He gives—

1329.	R.	Ammonii chloridi,	℥j	
		Extracti conii,	gr.ij.	M.
This amount, in any appropriate vehicle, thrice daily.				

MR. R. A. STAFFORD, F. R. C. S., LONDON.

This surgeon believes that he has succeeded in diminishing simple prostatic hypertrophy by the use of—

1330.	R.	Potassii iodidi,	gr.ij-iv	
		Extracti hyoscyami,	gr.v-viiij.	M.
Make a suppository. One every night.				

When the urine is acid, the liquor potassæ or other alkali should be administered to restore its alkalinity.

Later writers speak highly of suppositories of *iodoform*. Prof. BARTHOLOW remarks, “the iodoform diffuses into the neighboring organs, and acts directly upon them.”

PROF. S. D. GROSS, M. D.

If the patient is plethoric, apply leeches to the perineum, and unload the bowels by saline purgatives (sulphate of magnesia or bitartrate of potassa). Condiments and alcoholic drinks must be renounced, also horseback exercise and venery. The patient must seek the horizontal position, wear flannel next the skin, and avoid exposure to cold.

DR. WASHINGTON L. ATLEE, PHILADELPHIA.

1331.	R.	Fluidi extracti ergotæ,	gtt.xx.
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This amount is to be given at first every four hours, its action being supplemented by the use of the catheter twice daily, until the patient regains entire control of the bladder. As this is restored, the frequency of the dose is generally reduced to a single administration, at bedtime.

This treatment has been very successful.



PROF. HEINE, INNSPRUCK, GERMANY.

1332. R. Potassii iodidi, ℥ij  
 Tincturæ iodidi, f.℥ij  
 Aquæ destillatæ, f.℥vj. M.

Of this solution, twelve to twenty drops are to be thrown into the substance of the gland, to a depth of two lines, the operation to be repeated every seven or fourteen days.

Great care is required to avoid parenchymatous suppuration.

## PRURITUS ANI.

WILLIAM ALLINGHAM, F. R. S., LONDON.

The patient should renounce coffee, spirits, condiments and rich food. The parts should be washed at night with warm water and yellow soap. The bowels should be kept soluble with gentle salines. On retiring, the following ointment should be applied freely:—

1333. R. Hydrargyri chloridi mitis, gr.x  
 Unguenti sambuci, ℥j. M.

Or this lotion:—

1334. R. Sodæ boratis, ℥ij  
 Morphiæ muriatis, gr.xvj  
 Acidi hydrocyanici diluti, f.℥ss  
 Glycerinæ, f.℥ij  
 Aquam, ad. f.℥viij. M.

## SPERMATORRHŒA.

PROF. S. D. GROSS, OF PHILADELPHIA.

1335. R. Elixir cinchonæ, ℥iss  
 Acidi nitrici diluti, gtt.viiij  
 Strychniæ sulphatis, gr. iſs. M.

This quantity to be taken three times daily.

Also,

1336. R. Morphiæ sulphatis, gr. 1  
 Butyri cocoæ, q. s. M.

For a suppository, to be introduced into the bowels at bedtime.

If there is a morbid sensibility of the urethra and prostate, some



of the following should be injected into the urethra twice in the twenty-four hours:—

1337. R.	Liquoris plumbi subacetatis,	3j	
	Aquæ,	f. 3x.	M.

PROF. ROBERTS BARTHOLOW, M. D.

Spermatorrhœa and impotence dependent on a relaxed state of the seminal vesicles may be greatly improved by arseniate of iron:—

1338. R.	Ferri arseniatis,	gr. v	
	Ergotæ extracti aquæ,	3ss.	M.

Make thirty pills. One night and morning.

When there is a condition of plethora with spermatorrhœa, iron is contra-indicated. The appropriate remedy then is the bromide of potassium. It is best given in full does, gr.xx-3j, at night.

DR. D. CAMPBELL BLACK, M. R. C. S., OF GLASGOW.

This author invariably treats spermatorrhœa with narcotics and tonics. He claims for camphor, opium, belladonna and hyoscyamus the first rank as narcotics; and for a tonic, there is nothing equal to the tinctura ferri chloridi, in *large doses*. His prescriptions are:—

1339. R.	Pulveris camphoræ,	gr. xviii	
	Pulveris opii,	gr. xij	
	Extracti hyoscyami,	q. s.	M.

Make twelve pills. One every night.

1340. R.	Tincturæ ferri chloridi,	f. 3j.
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Forty to sixty drops thrice daily, in a wineglassful of water.

He considers hyoscyamus and belladonna equally valuable.

PROF. A. P. LANKFORD, ST. LOUIS.

If the spermatorrhœa can be traced to irritable prostate, this writer (*Medical Herald*, December, 1871) recommends urethral injections, as:—

1341. R.	Zinci acetatis,	gr. iv.	
	Aquæ,	f. 3iv.	M.

For one injection. Use twice daily.

When there is unusual irritability of the parts, mild alkaline diuretics, and injections of acetate of lead or tannic acid, are called for. For nocturnal emissions, belladonna is most useful.



MR. G. G. GASCOYNE, OF LONDON.

This writer (*British Medical Journal*, 1872) speaks unfavorably of strychnia, belladonna, cantharides and phosphorus. For the local irritability which leads to emissions, he has most frequently succeeded with—

1342.	R.	Pulveris camphoræ,	℥ij	
		Pulveris opii,	gr. x-xx	
		Pulveris aloës socotrinæ,	℥j-ij.	M.

For twenty pills. One or two to be taken at bedtime.

He highly commends ergot, given in the fluid extract, combined with dilute sulphuric acid. Tincture of matico he has also found of good service.

PROF. D. HAYES AGNEW, OF PHILADELPHIA.

This teacher considers cantharides not advisable in spermatorrhœa with debilitated powers. He “knows no better treatment than phosphorus and strychnia”:—

1343. R. Strychniæ sulphatis, gr.ij  
Phosphori, gr.j. M.  
To make fifty pills. One three times a day.

The diet should be nutritious but not rich, the suppers light, the bladder kept well emptied, and the rectum free from irritation.

DR. GUIPON, OF PARIS.

1344.	R.	Lupulinæ,			
		Camphoræ pulveris,	āā	gr. ix	
		Extracti belladonnæ,		gr. iiss.	M.

Divide into ten pills. From two to five a day in spermatorrhœa. Cold lotions to the perineum, hydropathy, tonic and reconstituent diet.

PROF. NIEMEYER, OF TÜBINGEN.

1345. R. Liquoris barii chloridi, gtt.v-x.  
This amount three times a day, after eating.

The *terra ponderosa* recommended by this author may be given in the officinal form, as above. So far as we have known it used in this country, it has not merited his encomiums.

DR. GEORGE H. SWAYZE, OF PHILADELPHIA.

This author (*Medical and Surgical Reporter*, July, 1875) considers the best treatment to be urethral injections of a solution of sulphate of zinc, gr.ij-iv to water f.ʒij, using the weaker when the



sensitiveness of the urethra is acute; and internally ammonio-ferric-alum, *ferri et ammoniæ sulphas*, with fluid extract of ergot, especially when there is relaxation of the parts, with excessive secretion and loss of semen.

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## SYNOVITIS.

MR. RICHARD BARWELL, F. R. C. S., LONDON.

In the chronic strumous synovitis, the so-called "white swelling" of the knee-joint, this author (*British Medical Journal*, October, 1874) believes in the stimulating treatment by means of iodine injections:—

1346. R. Tincturæ iodinii,  
Aquæ destillatæ,

f.ʒss  
f.ʒj.

M.

This method of using the drug is simple: a syringe with a very fine needle should be used, and care must be taken not to inject into the cavity of the joint, but into the thickness of the morbid tissue. Injection must not be employed when any active inflammatory process is going on; the temperature of the joint must be not at all higher, or but a portion of a degree higher, than that of the other side. There must be either no pain, or only that dull aching which is rather a sign of fullness of veins than of arterial hyperæmia. Starting of the limb, the symptom above all others which shows that the cancellous stricture next the articular lamella is inflamed, shows also that the time for this treatment has passed by, unless such starting be only occasional, and not severe.

When, in any case, all the favorable conditions are present, he punctures the skin in the softest and most prominent parts of the tumefaction, making from two to four punctures, as the case may demand or permit; into each of these punctures he injects about five minims of the fluid, withdrawing the needle a little as the piston descends. An elastic bandage is applied after the operation.

DR. C. FITZHENRY CAMPBELL, OF SACKVILLE, N. B.

Our author, referring to the practice of Dr. MORITZ, of Coblenz (*Medicinische Zeitung*, No. 26, 1842), of employing nitrate of silver,



either in solution (ten grains to the fluid ounce) or in substance, as a local application in cases of articular effusions, whether resulting from gout, rheumatism, scrofula or wounds, says that for more than twenty years past he has been in the habit of applying a solution of this salt (three to eight grains to the fluid ounce) to almost all painful swellings of the joints, whether resulting from blood disease or mechanical injury, with the happiest results. (The *Lancet*, July 1st, 1871.)

DR. P. J. MANEC, PARIS.

1347. R. Ammonii chloridi,  $\mathfrak{Z}ijss$   
 Aquæ (or vini rubri),  $\mathfrak{Oj}$ . M.

Compresses immersed in this solution are to be applied to the knee in recent cases.

The articulation is to be moderately compressed, and the bandages kept moist with the solution. Afterward, recourse is had to flying blisters, if necessary.

## TUMORS.

M. T. ANGER, PARIS.

In mucous cysts, as of the vulva, etc., this writer has obtained no satisfactory results from iodine, but reports favorably of chloride of zinc:—

1348. R. Zinci chloridi,  $\frac{gr. x}{\mathfrak{Z}j}$ . M.  
 Aquæ destillatæ,

Twenty drops injected into the tumor.

A single injection is ordinarily sufficient to bring about a decrease of size, which, however, does not begin for four or five days.

PROF. MUSSEY, M. D., CINCINNATI.

1349. R. Plumbi nitratis,  $\mathfrak{Z}ij$   
 Aquæ rosarum,  $\mathfrak{Z}iv$ . M.

Apply three times a day to warts, scabby or scaly tumors.

The dry powder of nitrate of lead can be used with great advantage in onychia maligna, etc.



## DR. MORELL MACKENZIE, LONDON.

After a wide experience with various substances, this surgeon says the most efficient means to bring about resolution of indolent *enlarged glands* of the neck or elsewhere is hypodermic injections of *dilute acetic acid*. From five to ten drops should be used, and the injection should not be made more than once a week; it should be thrown well into the middle of the gland.

## SIR J. Y. SIMPSON, EDINBURGH.

1350. R. Cupri sulphatis exsiccatae pulveris,  $\overline{3j}$   
Glycerinæ, f. 3j. M.

The caustic mixture thus obtained acts only on the skin deprived of its epidermis. The eschar is white, and ordinarily separates the fifth or sixth day. The advantages attributed to this caustic in the treatment of tumors are the following:—1. Energetic escharotic effect. 2. Rapidity of action. 3. Easy management. 4. No tendency to run. 5. Freedom from danger.

## SIR HENRY THOMSON.

1351. R. Zinci sulphatis exsiccatae,  $\overline{3iv}$   
Acidi sulphurici, q. s.

The sulphate of zinc, previously dried in order to deprive it of its water of crystallization, is mixed with strong sulphuric acid to the consistence of a jelly, which is then applied by means of a glass rod or spatula. The parts surrounding the tumor to be destroyed are to be covered with a firm pomade to limit the action of the caustic.

## PROF. DEMARQUAY, PARIS.

1352. R. Unguenti hydrargyri,  $\overline{3iij}$   
Camphoræ,  $\overline{9ij}$   
Ceræ flavæ,  $\overline{3iss}$   
Olei olivæ, f. 3iss.

Dissolve the wax and oil by heat, and when nearly cold add the camphor in powder and the mercurial ointment, and make a homogeneous mixture. A useful absorbent ointment for indolent tumors.



# ULCERS.

DR. JAMES BRAITHWAITE, LEEDS.

1353. R. Acidi carbolici,  $\overline{3j}$   
 Aquæ destillatæ, f.  $\overline{3}$ viii. M.

Apply this to the ulcer by brushing it on, and expose the part to warm dry air for some hours. It forms a glazed impervious surface.

MR. THOMAS KIRKLAND, OF LONDON.

1354. R. Emplastri plumbi,  $\overline{3j}$   
 Cretæ preparatæ,  $\overline{3ss}$   
 Olei olivæ,  $\overline{aa}$   
 Acidi acetici, f.  $\overline{3ss}$   
 Plumbi acetatis,  $\overline{0j}$ . M.

This is the celebrated "Kirkland's Neutral Ointment," a very soothing application in irritable ulcers, highly commended by Sir BENJAMIN BRODIE and other surgeons.

DR. OHLEYER, OF GERMANY.

1355. R. Magnesiæ,  
 Aquæ,  $\overline{aa}$  q. s.  
 To form a thin paste.

This, or dusting the surface freely with the magnesia, has proved of much use in atonic ulcers, slow wounds, and painful sores.

DR. ROBERT J. GRAVES, DUBLIN.

1356. R. Balsami peruviani,  $\overline{3j}$   
 Olei ricini, f.  $\overline{3ij}$ . M.

This is to be applied by means of lint to the bed-sores observed in prolonged illnesses, and particularly in typhoid fever. Two or three times a day linseed-meal poultices are to be applied over the lint, and the ulcerations are to be washed morning and evening with chlorine water.

THE ROOSEVELT HOSPITAL, NEW YORK.

The Roosevelt Hospital treatment of languid old ulcers is, that they are dressed with Labarraque's solution (liquoris sodæ chlorinatæ) until the sore becomes surgically clean. The solution is to be diluted with water, according to circumstances. If then the granulations have a healthy appearance, the ulcer is strapped, and the limb bandaged. If the granulations become flabby and inac-



tive, a dressing of balsam of Peru is applied, and over that straps and bandage.

Various older surgeons have spoken of the excellent effects of *oleum terebinthinæ* as a stimulant to old ulcers, and it has fallen into undeserved neglect. The surface should be freely painted with it, and lint, wet with it, may be laid upon the ulcerated surface.

DR. BOURGUIGNON, PARIS.

The external use of the tartrate of iron and potash is praised by this writer. He finds that in chronic wounds generally, and especially in varicose ulcers of the leg, with hard, well-defined edges and unhealthy surfaces, this substance acts beneficially, generally effecting a cure in two or three months. He uses a solution of from two to six parts of the salt in one hundred of distilled water, a few drops of ammonia being added to prevent precipitation. Pledgets of fine charpie soaked in this are applied to the ulcer night and morning, and covered over with a thick layer of cerate.

The following formulæ have been commended :—

1357. R. Chlorali hydratis, gr.xvj-℥ss  
Aquæ destillatæ, f.℥iv. M.

As a local application to ulcers.

1358. R. Olei cadini, f.℥j  
Pulveris calcis sulphatis, ℥vj. M.

To be thinly spread on dressings for ulcers, where the suppuration is profuse.

MR. PHILIP COWEN, M. R. C. S. L., LONDON.

1359. R. Farinæ (wheat flour), ℥iv  
Acaciæ pulveris, ℥j  
Tragacanthæ pulveris, ℥ss  
Ovi, No.j  
Cretæ, ℥ij  
Aquæ frigidæ, Oj.

Mix and heat to boiling; boil one minute, and cool. It should be thin enough to spread with a brush.

The patient, provided with a pot and brush, paints the ulcer with this three or four times daily, covering it, when done, with a soft rag. Mr. COWEN claims very good results from this (*Lancet*, January, 1873.)

ROBERT DRUITT.

1360. R. Creasoti, gtt.xx  
Unguenti resinæ,  
Adipis, aa ℥j. M.

A good stimulating application in indolent and sloughing ulcers and hemorrhoids.



Much praise has of late been accorded to *iodoform* in obstinate and irritable ulcers. Its objection is its penetrating and unpleasant smell. Dr. GUBLER, of Paris, uses the formula :—

1361. R. Iodoformi, gr. xv  
Ætheris, f. ʒj. M.

In consequence of the rapid volatilization of the ether, the iodoform is reduced to a state of extreme tenuity and covers the surface in a uniform manner.

DR. PARETA, OF PALERMO, ITALY.

1362. R. Iodoformi, ʒi  
Alcoholis, f. ʒss  
Glycerinæ, f. ʒiv. M.

Wash the ulcers daily with this, and then dust them liberally with iodoform in fine powder.

Iodoform is certainly an admirable local anæsthetic. It may be advantageously used as an ointment, ʒij–iv to lard ʒj.

The same teacher, and others, have also experimented satisfactorily with *pepsin* in obstinate phagedenic and cancerous ulcers. His formula is :—

1363. R. Pepsinæ, ʒss  
Acidi lactici, ʒi  
Aquæ, f. ʒiiijss. M.

Use as a local application to the ulcer.

This, he states, has succeeded after numerous other vaunted remedies had failed.

DR. COMEGYS PAUL, OF PHILADELPHIA.

This writer (*Medical Times*, November, 1875) directs attention anew to ordinary commercial *petroleum*, as an inexpensive and efficient antiseptic and stimulating application to ulcerous and suppurating surfaces. He has found the petroleum to be most useful as an application to non-specific sluggish ulcers, and to all suppurating wounds that have a tendency to heal with an unhealthy and easily-ruptured cicatrix.

As an injection in sinuses, either connected or unconnected with diseased bone, the result will be satisfactory. In a bone-sinus it can be used without interruption, materially diminishing the discharge.

It is valuable in all inflammations of an erysipelatous character, being applied like an ordinary fomentation. The spreading of the disease is, apparently, favorably influenced, and the duration shortened in many cases.



Wounds dressed with petroleum should be thoroughly cleansed, then covered with saturated lint, and, where there has been deep-seated destruction of the tissues, charpie fully impregnated with it should be packed into the cavities, and the whole overspread with oiled silk, waxed paper, or a piece of muslin spread with lard.

The smell is not at all oppressive, and does not cling to the fingers after ablution.

## VARICOSE VEINS.

PROF. A. D. VALLETTE, OF LYONS.

This author has employed the following :—

1364. R.	Iodinii,	gr. xv	
	Acidi tannici,	℥ ss	
	Aquæ destillatæ,	f. ℥ xvj.	M.

For local injection.

During the operation, a bandage is applied tightly round the limb above the vein to be operated on, and this is not to be removed for three hours after, for fear of embolism. The "iodo-tannic" solution is injected to an amount varying from ten to twenty-five drops. The effect is to cause immediate coagulation of the blood at the part acted on. At first there is no pain, but after a few hours a severe burning sensation sets in, and the vein begins to inflame slightly in each direction. This never reaches any serious degree, but it is sufficient to cause obliteration for some distance above and below the spot injected. The author states that there is no fear of embolism. He has operated in more than two hundred cases without any accident, and he has found the results much more permanent and complete than after any other operation.

DR. VOGT, OF BERLIN.

1365. R.	Ergotæ extracti aquosæ,	3ij	
	Alcoholis,		
	Glycerinæ,	āā 3j.	M.

A syringeful injected in the vicinity of the varix.

DR. LINON, VERVIERS, FRANCE.

This writer claims much success in the treatment of varicose veins by swathing the leg in a flannel compress wet with a solution of chloride of iron in water, forty-five grains to the ounce, and then applying a roller flannel bandage over it firmly for twenty-four hours. This is to be repeated daily for a week or two weeks.



### III. THE EYE AND EAR.

THE EYE.—*Blepharitis—Conjunctivitis, Acute, Chronic, Membranous, Gonorrhæal—Corneal Ulcer—Corneal Opacity—Granular Lids—Hyperæmia—Iritis—Keratitis—Stye—Wounds and Injuries.*

THE EAR.—*Acute Otitis—Otorrhœa.*

#### BLEPHARITIS.

MR. ROBERT BRUDENELL CARTER, F. R. C. S., LONDON.

The treatment should be commenced by removing the crusts by a warm alkaline lotion (sodæ bicarbonatis gr.v, aquæ f.℥j), and then apply an astringent ointment, preferably that advised by Prof. PAGENSTECHER, of Wiesbaden, containing the yellow oxide of mercury:—

#### PAGENSTECHER'S OINTMENT.

1366. R.	Hydrargyri oxidi flavi,	gr. xxx	
	Olei olivæ,	f. ℥ij	
	Adipis,	℥j.	M.

If the disease resists this, the parts may be touched with a stick containing one-fourth part of nitrate of silver, or with liquor potassæ.

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#### CONJUNCTIVITIS.

#### ACUTE CONJUNCTIVITIS.

DR. MARTIN F. COOMES, LOUISVILLE.

This ophthalmologist severely condemns (*Medical and Surgical Reporter*, August, 1875) the use of nitrate of silver in acute conjunctivitis (catarrhal ophthalmia). Out of over ninety cases he had treated by simpler means, not one resulted in the least impairment of vision. In purulent cases, he cleansed the eye frequently with



warm water and collyria of alum, gr.ij to water f.ʒj. When the discharge commenced to diminish, a solution of sulphate of copper, from ten grains to the ounce, to a saturated solution, was applied to the everted lid once every two or three days. The early stages of the milder forms were treated with—

- |                          |                |       |    |
|--------------------------|----------------|-------|----|
| 1367. R.                 | Sodæ boratis,  | gr.x  |    |
|                          | Aquæ camphoræ, | f.ʒj. | M. |
| Apply every hour or two. |                |       |    |

In later stages, a weak solution of sulphate of copper, or—

- |          |                |           |    |
|----------|----------------|-----------|----|
| 1368. R. | Acidi tannici, | gr.iiij-x |    |
|          | Aquæ,          | f.ʒj.     | M. |

MR. GEORGE LAWSON, F. R. C. S., LONDON.

In the treatment of *acute conjunctivitis* (catarrhal ophthalmia), this author recommends that, every two or three hours, or oftener, if the case be a severe one, the eyes be bathed with one of the following lotions, being careful at each application to permit a small portion to flow into the eyes:—

#### LOTIO ALUMINIS.

- |          |                  |       |    |
|----------|------------------|-------|----|
| 1369. R. | Aluminis,        | gr.vj |    |
|          | Aquæ destillatæ, | f.ʒj. | M. |

#### LOTIO ALUMINIS MITIOR.

- |          |                  |       |    |
|----------|------------------|-------|----|
| 1370. R. | Aluminis,        | gr.iv |    |
|          | Aquæ destillatæ, | f.ʒj. | M. |

#### LOTIO ALUMINIS CUM ZINCI SULPHATE.

- |          |                  |         |    |
|----------|------------------|---------|----|
| 1371. R. | Aluminis,        | gr.iiij |    |
|          | Zinci sulphatis, | gr.j    |    |
|          | Aquæ destillatæ, | f.ʒj.   | M. |

Cold water should be employed between the times of these applications, to keep the eyes free from the discharge.

A solution of nitrate of silver (gr.j-ij to the ounce) is useful, particularly when there is chemosis of the conjunctiva and swelling of the lids. Two or three drops of this should be dropped into the eye twice a day.

In chronic and purulent cases, he recommends as local applications, when there is any extra secretion present, stimulating drops or lotions, such as what he terms his



## GUTTÆ ARGENTI NITRATIS.

1372. R. Argenti nitratis, gr.ij  
Aquæ destillatæ, f.ʒj. M.

## GUTTÆ ZINCI SULPHATIS.

1373. R. Zinci sulphatis, gr.ij-ij  
Aquæ, f.ʒj. M.

These solutions should be dropped into the eye twice a day.

If there be no abrasion of the cornea, the following lotion will be useful:—

1374. R. Plumbi acetatis, gr.ij  
Acidi acetici diluti, m.ij  
Aquæ destillatæ, f.ʒij. M.

At night, if there be much secretion from the Meibomian follicles, the tarsal edges of the lids should be anointed with

## UNGUENTUM HYDRARGYRI NITRATIS DILUTUM.

1375. R. Unguenti hydrargyri nitratis, ʒj  
Unguenti cetacei, ʒij. M.

Stimulating applications should not be made to the eye when there is much photophobia, for they then fail to do good, and are apt to act as irritants.

## PROF. GUNNING S. BEDFORD, NEW YORK.

1376. R. Hydrargyri chloratis corrosivi, gr.ij  
Ammoniaë muriatis, gr.iv  
Aquæ destillatæ, f.ʒvj. M.

Make a solution.

For *purulent ophthalmia in new-born infants*, the eyes to be washed with the solution several times during the day. The applications should not be confided to the nurse; they should be made by the practitioner himself, as follows: The child being placed on its back, resting in the lap of the nurse, the practitioner placing its head on his knee, with a soft sponge, moistened with tepid water, cleanses the eyes. The lids are then gently separated, and after everting them, the accumulated matter is removed, and the collyria applied.

It may become necessary to touch the inflamed conjunctiva, by means of a camel's-hair pencil, with the following solution once a day:—



1377. R. Argenti nitratis,  
Aquæ destillatæ,

gr.ij  
f. 3j. M.

Make a solution.

When the child falls asleep, the outside borders of the lids, in order to prevent their agglutination, should be smeared with fresh butter, fresh olive oil, or, what perhaps is better, the red precipitate ointment. The bowels are to be kept regular with castor oil, or flake manna in solution, and, above all, the eyes are to be protected against light.

MR. A. R. HALL, SURGEON, R. A.

This surgeon treats cases of infants suffering from purulent ophthalmia by simply painting the lower eyelids, upper part of the cheeks and temples with the pure balsam copaiva. They get well quickly, without damage to the eyes. (*Practitioner*, April, 1875.)

DR. B. A. POPE, OF NEW ORLEANS.

In reference to *membranous and diphtheritic conjunctivitis*, that is, when there is infiltration of the conjunctiva, with diminished vascularity and tendency to the formation of false membranes, cauterization and the use of astringents are contra-indicated. Frequent *cleansing of the eye*, the application of *cold-water dressings*, and the careful use of *mercurials*, are the principal means of treatment.

In the early stages of the disease, the *application of leeches* to the temple is often of decided advantage.

In a case of diphtheritic conjunctivitis, it is only when the second stage of the disease has arrived, namely, that of restored vascularity and commencement of purulent secretion, that the use of nitrate of silver can be resorted to. The third stage, or that of cicatrization, can be but little benefited by treatment.

The solution of nitrate of silver preferred by our author is of the strength of gr.vj to the f.3j. In administering mercury, he orders gr.℥ of calomel every two hours, and mercurial inunctions upon the temple three times a day, or mercurial inunctions alone, upon the temple and in the axilla, every two hours.

GONORRHOEAL CONJUNCTIVITIS.

DR. ROGERS, OF MADISON, INDIANA.

1378. R. Acidi carbolici,  
Atropiæ sulphatis,  
Zinci sulphatis,  
Aquæ destillatæ,

gr.j  
gr.ss  
gr.ij  
f. 3j. M.

This solution is to be dropped into the eye every two hours, and applied constantly, with moist compresses externally.



Dr. ROGERS has proved the efficiency of this treatment in numerous cases of gonorrhœal conjunctivitis, with chemosis, great swelling of the lids, profuse purulent discharge, photophobia, etc. A week generally suffices for a cure.

## CORNEAL OPACITIES.

MR. C. MACNAMARA, F. R. C. S., LONDON.

This writer believes that, for the nebula and haziness resulting from chronic granular conjunctivitis, *tannic acid*, dusted into the afflicted eye once or twice a day, affords the patient a better hope of relief than any other treatment. In the Westminster Ophthalmic Hospital, of which he is surgeon, is used, in cases of nebula and corneal opacities—

1379. R.	Oxide of zinc,		
	Armenian bole,	aa	ʒij
	Olive oil,		f.ʒiv
	Ammoniated mercury,		ʒj
	Lard,		ʒiv.
			M.

MR. T. HOLMES, LONDON.

The opacity of the cornea remaining after keratitis may often be greatly benefited by injecting under the conjunctiva (after all inflammatory action has ceased) a solution of common salt:—

1380. R.	Sodii chloridi,	gr. x	
	Aquæ destillatæ,	f.ʒj.	M.

A few drops to be injected under the conjunctiva once a fortnight.

The treatment by *tattooing* remains as a last resort to remove the disfigurement.

## CORNEAL ULCER.

DR. JOHN GREEN, ST. LOUIS.

Dry calomel, in impalpable powder, dusted in very minute quantity into the eye once a day, is a highly valued remedy in the healing stage of corneal ulcers. Pagenstecher's ointment (see Formula 1366) answers well in cases which require stronger stimulation.



MR. T. HOLMES, OF LONDON.

The general directions of this surgeon for the management of corneal ulcer is to obtain repose of the sphincter of the pupil and the muscles of accommodation by means of atropine, to prevent friction of the lids by a well-applied compressive bandage, to employ hot fomentations, tonics, and nutritious diet.

## GRANULAR LIDS.

PROF. DAVID W. YANDELL, M. D., LOUISVILLE.

This surgeon insists on the importance of constitutional treatment in trachoma, iron and quinine with fresh air, bathing and good diet. Locally he makes free scarifications of the granulations, promotes the bleeding by hot water, and applies the smooth crystal of sulphate of copper. The pain is best relieved by hot water. The patient is directed to bathe the eyes several times daily in salt water. To prevent the gluing of the lids, he directs the use of—

1381. R.	Unguenti oxidi rubri,	3j	
	Oleum morrhuæ,	f. 3j.	M.
Rub at night on the margin of the lids.			

## HYPERÆMIA OF THE CONJUNCTIVA.

PROF. J. SOELBERG WELLS, LONDON.

This author states that hyperæmia of the conjunctiva is often caused by close application of the eyes, insufficient light, or from contact with atmospheric or mechanical irritants. The cause is first to be removed. In order to relieve the feeling of heaviness which oppresses the eyelids, employ one of the following

### EVAPORATING LOTIONS.

1382. R.	Spiritus ætheris nitrosi,	f. 3j	
	Acidi acetici aromatici,	gtt. vj	
	Aquæ destillatæ,	f. 3vj.	M.

To be sponged over the closed eyelids and around the eyes three or four times daily, and allowed to evaporate.



1383. R. *Ætheris*, f.ʒij-iv  
*Spiritus rosmarinæ*, f.ʒiv. M.

To be used in the same manner as F. 1382, but in smaller quantity, especially if the skin be delicate and susceptible.

The best *astringent lotions* are the following:—

1384. R. *Zinci sulphatis*, gr.ij-iv  
*Aquæ destillatæ*, f.ʒiv-vj. M.

1385. R. *Plumbi acetatis*, gr.ij-iv  
*Aquæ destillatæ*, f.ʒiv-vj. M.

The above are to be applied by saturating a piece of lint with the solution, and laying it over the eyelids for fifteen or twenty minutes, several times a day, allowing a few drops to enter the eye.

In chronic cases of hyperæmia these applications must give place to weak *collyria*, such as—

1386. R. *Cupri sulphatis*, gr.ʒ-ij  
*Aquæ destillatæ*, f.ʒj. M.

1387. R. *Argenti nitratis*, gr.ʒ-ij  
*Aquæ destillatæ*, f.ʒj. M.

A drop or two of one of these *collyria* is to be applied to the conjunctiva.

## IRITIS.

MR. ROBERT BRUDENELL CARTER, F. R. C. S., LONDON.

On the treatment of iritis this author says the first principle to be borne in mind is to *avoid all irritants*, such as astringents, nitrate of silver lotions, etc. The eyes should be given complete functional rest, and, to prevent adhesions, the cardinal point is the use of atropine, which should never be omitted, save in excessively rare cases where it produces local inflammatory action. A four-grain solution should be applied at intervals of an hour till complete dilatation is obtained, and this should be kept up, by a single drop of the solution night and morning. When the atropine from any cause fails to dilate the eye fully, *the use of mercury is imperative*, pushed as rapidly as possible to its constitutional action, as shown by the slight mercurial line on the gums. This should be maintained until the resolution of the inflammation is accomplished.



But the condition of "salivation" should never be brought about designedly.

During the whole period of treatment the eye should be closed and protected by a compressive bandage, applied with comfortable tightness over a pad of jeweler's cotton-wool. By this means the patient will be enabled to walk abroad without restraint, so long as he avoids injurious fatigue or hurry. Sometimes, especially when resting at home, a poultice will be a pleasant substitute for the pad and bandage; but neither the one nor the other should be applied until a quarter of an hour after the installation of the atropia, lest the solution should be absorbed and removed from the eye.

When the inflammatory symptoms are rapidly subsiding, the mercury, and probably the opium, may be entirely laid aside. But the continued use of atropia is necessary in order to prevent relapse; and the pupil should be kept fully dilated until the eye is quite well. As long as the pupil is dilated the eye does not participate in the functional changes of its fellow, to which, therefore, moderate use may be permitted. An attack of any severity usually leaves behind a temporary proneness to conjunctival irritation, which the atropia may often assist to keep up. For this the cautious use of a mild astringent, such as—

1388. R.	Zinci sulphatis, Aquæ destillatæ,	gr. iv f. ʒiv.	M.
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This collyrium will usually be found effectual.

It will often be desirable to protect the eye from the glare, wind and dust after a severe attack, by the use of blue glasses. These are now made of a watch-glass form, for the purpose of excluding side light.

MR. A. R. HALL, SURGEON R. A.

This surgeon (*Practitioner*, April, 1875) records the very excellent results he has had with *balsam of copaiva* in iritis and scleritis. He gives to adults f. ʒij, in mucilage, three times a day. The pain should be diminished in twenty-four or forty-eight hours, and the sight be restored.

GEORGE LAWSON, F. R. C. S., SURGEON TO THE ROYAL LONDON OPHTHALMIC HOSPITAL, MANSFIELD.

In the treatment of *symphilitic iritis* our author regards mercury as imperatively called for. It should be given in doses sufficiently



large and frequent to bring the patient quickly under its influence, but as soon as the gums begin to grow tender and spongy the quantity should be diminished so as to avoid anything like profuse salivation. A piece, of the size of a nut, of the *unguentum hydrargyri* may be rubbed into the axilla night and morning, or a pill with calomel and opium may be administered:—

1389. R. Hydrargyri chloridi mitis, gr. j-ij  
 Pulveris opii, gr.  $\frac{1}{4}$ -ss  
 Confectionis rosæ, q. s. M.  
 For one pill thrice daily.

If the patient be feeble, quinine may be prescribed at the same time, and it may be conveniently ordered in the following mixture:—

1390. R. Quiniæ sulphatis, gr. xij  
 Acidi sulphurici diluti, f. ʒij  
 Tincturæ aurantii, f. ʒvj  
 Aquæ destillatæ, q. s. ad. f. ʒvj. M.  
 Tablespoonful, in water, thrice daily, while the mercurial inunction is used night and morning.

If the patient has already been salivated before he first comes under treatment, the following iodide of potassium mixture should be given:—

1391. R. Potassii iodidi, gr. xxxvj  
 Potassæ bicarbonatis, ʒj  
 Infusi quassię, f. ʒvj. M.  
 A tablespoonful thrice daily.

At the same time a slight mercurial action may be kept up by the use of the following:—

#### UNGUENTUM HYDRARGYRI CUM BELLADONNA.

1392. R. Extracti belladonnæ, ʒj  
 Unguenti hydrargyri, ʒvj. M.  
 To be rubbed into the brow and temple, and allowed to remain on during the day.

When all the effused lymph has been absorbed, and the iritis has nearly subsided, the mercurial medicines should be omitted, but the iodide of potassium should be continued for two or three months, combined with a bitter tonic, or, if the patient is anæmic, with some preparation of iron, as the



## MISTURA POTASSII IODIDI CUM FERRO.

1393. R. Potassii iodidi, gr. xxxvj  
 Potassæ bicarbonatis, āā ʒi  
 Ferri et ammoniæ citratis, āā f. ʒvj. M.  
 Aquæ destillatæ,
- A tablespoonful, in water, thrice daily.

If the iritis recur after some months, or if it assumes a chronic form, the following mixture will be found of great service:—

1394. R. Hydrargyri chloridi corrosivi, gr. j  
 Potassii iodidi, ʒi  
 Tincturæ calumbæ, f. ʒij  
 Aquæ destillatæ, q. s. ad. f. ʒvj. M.
- Two teaspoonfuls, in a glass of water, two or three times a day.

Atropia is essential in the treatment of every form of iritis, and should be ordered at the very commencement of the attack, and persevered in during its continuance. A solution, of the strength of gr. ij to aquæ f. ʒj, should be dropped into the eye two or three times a day. When the atropia fails to give ease, or acts, as is sometimes the case, as an irritant, the following belladonna lotion may be employed:—

## LOTIO BELLADONNÆ.

1395. R. Extracti belladonnæ, ʒij  
 Aquæ destillatæ, f. ʒviij. M.

*Rheumatic iritis* does not require the active mercurial treatment recommended for the syphilitic form of the disease. F. 1391 may be given during the day, and at night the following pill:—

1396. R. Hydrargyri chloridi mitis, gr. j  
 Pulveris ipecacuanhæ compositi, gr. v. M.
- For one pill.

Or the mercurial and belladonna ointment (F. 1392) may be rubbed daily into the temple.

In some cases the treatment may fail to give relief. Then quinine, in two-grain doses, may be ordered with benefit. Or, the quinine may be combined, as follows:—

1397. R. Quiniæ sulphatis, gr. xij  
 Tincturæ ferri chloridi, āā f. ʒj  
 Acidi nitrici diluti, āā f. ʒvj. M.  
 Aquæ destillatæ,
- A tablespoonful, in water, to be taken through a tube, thrice daily.



When there is great photophobia and pain in the eye, the quinine or quinine and iron treatment, together with a mild mercurial inunction into the temple, will be found most useful. To relieve the pain, a fourth or a third of a grain of the *acetate of morphia* may be injected subcutaneously into the arm. Our author directs the following formula for the

## INJECTIO MORPHIÆ.

1398. R.	Morphiæ acetatis,	℥iv	
	Aquæ destillatæ,	℥℥j.	M.

Rub the morphia gradually with the water, and add a few drops of dilute acetic acid, if necessary, for perfect solution. Of this preparation six minims contain one grain of morphia.

*Turpentine* has been prescribed with advantage in obstinate cases of *non-syphilitic iritis*. It may be ordered as follows:—

1399. R.	Olei terebinthinæ,	℥iij	
	Syrupi acaciæ,	℥℥iss	
	Aquæ pimentæ,	℥iv.	M.

A tablespoonful four or five times a day.

During the whole time the pupil should be kept well dilated by means of atropia, or the belladonna lotion (F. 1395).

N. C. MACNAMARA, PROFESSOR OF OPHTHALMIC MEDICINE, CALCUTTA.

1400. R.	Atropiæ,	gr. iv	
	Aquæ,	℥℥j.	M.

To be dropped into the eye, three times a day, in cases of syphilitic iritis in children.

Mercurial ointment should also be rubbed into the thighs every other night, for twenty minutes; and thirty drops of cod-liver oil, with one-half grain of iodide of iron, should be administered twice a day to an infant six months old. For syphilitic iritis, mercury, judiciously employed, is the sheet-anchor to be relied upon. The best mode of employing it in these cases is by inunction. Our author never prescribes mercury internally for children, nor does he find it necessary to push the treatment so far as to affect the gum.

According to MACKENZIE, and, indeed, all the best authorities, atropia ought to be employed as a collyrium in every case of iritis, and in all stages of the disease.



## KERATITIS.

DR. LAURENCE TURNBULL, PHILADELPHIA.

In the phlyctenular keratitis of infants and cachectic subjects, this author commends this wash for the eye:—

1401. R.	Hydrargyri chloridi corrosivi,	gr. j	
	Ammoniae muriatis,	gr. vj	
	Tincturae belladonnae,	f. ʒij	
	Aquae destillatae,	f. ʒviij.	M.

A teaspoonful of this, in a wineglassful of tepid water, to be applied frequently, with a pledget of lint, on the closed lids.

## STYES.

LAURENCE TURNBULL, PHILADELPHIA.

As a hordeolum generally arises from an enfeebled constitution, it is necessary to combine with the local treatment a general tonic and alterative course. A combination of iron and quinine may be used, including *tinctura arnicæ*, gtt.xx, thrice daily. Locally, if seen early, touch the swelling with the ointment of nitrate of mercury, a drachm to the ounce, or double that strength.

MR. R. B. CARTER, F. R. C. S., LONDON.

For the early dispersion of styes, this surgeon recommends that as soon as the pimple is perceived, the eyelash passing through it be extracted with a fine forceps, and a sharpened point of dilute nitrate of silver stick be immediately placed upon the mouth of the open follicle and held there steadily for a few seconds.

## WOUNDS AND INJURIES.

BURNS AND SCALDS OF EYES AND LIDS.

GEORGE LAWSON, F. R. C. S., ENGLAND.

1402. R.	Glycerinæ,		
	Aquæ rosæ,	āā	f. ʒij
	Aquæ destillatae,	ad. ʒviij.	M.



A soothing lotion for washing the eye and lids in cases of burns and scalds. A few drops of olive oil should be dropped into the eye, and the lids then gently closed, and some cotton-wool laid closely over them, which may be kept in its place by a single turn of a light bandage. The dropping of the oil into the eye should be repeated two or three times during the day, and each time the bandage is removed the above lotion should be employed to remove any discharge which may have accumulated. This is the only treatment slight cases require.

## ACUTE OTITIS.

DR. EUGENE H. TRIQUET, OF PARIS.

1403. R. Cupri sulphatis, gr. xv  
 Mellis rosæ, f. ʒj  
 Aquæ rosæ, f. ʒiij. M.

Inject into the ear in acute catarrh, after the pain has been lessened by leeches and poultices.

1404. R. Acidi tannici, gr. iss  
 Glycerinæ, f. ʒijss. M.

Dip a camel's-hair pencil in this solution, and touch with it the membrane of the tympanum when torn, in order to facilitate cicatrization. At the same time, the tympanum should be kept immovable, by means of pledgets of cotton introduced well into the auditory canal, and by excluding all noise from the neighborhood of the patient.

1405. R. Aloës socotrinæ,  
 Scammonii,  
 Gambogiæ, āā gr. xv  
 Tragacanthæ, q. s. M.

Divide into fifteen pills. Two in the evening, several times a week, in the otitis of drinkers and smokers. Locally, emollient fumigations.

## OTORRHŒA.

DR. LAURENCE TURNBULL, OF PHILADELPHIA.

The first indication is to remove the secretions. This is accomplished by the syringe and a warm solution of borate and bicarbonate of soda, of each one drachm to a pint of hot water.



If the pus is in the middle ear, and the opening in the membrana tympani small, the patient being unable to force the matter out by the process of Valsalva (namely, a prolonged inspiration and expiration, with the nostrils closed), even if the operation is frequently repeated, then the physician must employ Politzer's process, which consists in this:—Take a straight or slightly curved tube, open at both ends, twelve or fifteen inches in length; this is introduced about half an inch into either of the anterior nares. The nares are then closed air-tight over the tube by gentle pressure with the fingers on both *alæ nasi*, prior to which the patient takes a small quantity of water in his mouth, which he swallows exactly at the same time that air is blown into the tube, which may be done by the operator having the other end of the tube in his mouth, or an india-rubber bag being attached to the tube, and compressed by the operator or assistant.

If antiseptics are needed to remove the odor, carbolic-acid solution, gtt.v–x to f.℥j, may be employed. Almost all aural surgeons have agreed upon certain astringent substances which are safe and proper to use in this class of chronic cases; and among the number the sulphate of zinc is one of the best, being employed in about the strength of from one to three grains to the ounce of water. Stronger solutions of this salt are resorted to, and are all right and proper if there is no perforation of the membrana tympani. But if there is an opening in this membrane, no matter how small, it is safer, and gives less pain to the sensitive middle ear, to resort to the milder solution, not exceeding three grains to the ounce of water. The alum salts are apt to cause abscesses. Nitrate of silver, in this class of cases, is very objectionable, especially in very strong caustic solutions, even when subsequently neutralized by a solution of common salt.

After the use of the astringent for four or five weeks, it is well to change it, or add a solution of two grains of sulphate of copper, or nitrate of lead.



## IV. DISEASES OF THE SKIN.

*Acne—Alopecia—Eczema—Erythema—Favus—Herpes—Impetigo—Lepra—Lichen—Lupus—Mentagra—Pityriasis—Prurigo—Psoriasis—Rosacea—Scabies—Tinea—Urticaria—General Therapeutics of Skin Diseases.*

### ACNE.

HENRY G. PIFFARD, M. D., OF NEW YORK.

In *acne sebacea* this writer commends a weak solution of tannin; or a powder containing tannin, ʒj to rice powder ʒj; or touching the points with *tinctura ferri chloridi*. In *acne simplex* he has found the following lotion very useful:—

- |                  |    |   |    |     |    |
|------------------|----|---|----|-----|----|
| 1406.            | R. | Sulphuris sublimati,<br>Alcoholis,<br>Tincturæ lavandulæ compositæ,<br>Glycerinæ,<br>Aquæ camphoræ, | āā | ʒj. | M. |
| Use as a lotion. |    |   |    |     |    |

J. M. DA COSTA, M. D., PHILADELPHIA.

- |       |    |   |               |      |    |
|-------|----|---|---------------|------|----|
| 1407. | R. | Acidi carbolici fluidi,<br>Glycerinæ,<br>Cerati adipis, | ℥xxx<br>f.ʒij | ʒvj. | M. |
|-------|----|---|---------------|------|----|

Employed in the treatment of acne and other pustular skin affections, in some cases with signal effect. If it produces too much irritation in this strength, it may be diluted with fresh lard.

- |       |    |   |            |       |    |
|-------|----|---|------------|-------|----|
| 1408. | R. | Liquoris potassæ arsenitis,<br>Extracti cascarillæ fluidi,<br>Tincturæ rhei dulcis, | f.ʒj<br>āā | f.ʒx. | M. |
|-------|----|---|------------|-------|----|

A teaspoonful thrice daily. Locally, iodide of sulphur ointment (gr.xv to adeps ʒj) twice a day, in chronic cases.

In simpler cases, try first a very mild ointment. None is more soothing than one of lard:—

- |       |    |   |                      |    |
|-------|----|---|----------------------|----|
| 1409. | R. | Liquoris plumbi subacetatis,<br>Glycerinæ,<br>Cerati simplicis, | ℥xx<br>f.ʒj<br>ʒvij. | M. |
|-------|----|---|----------------------|----|

To be rubbed on thoroughly, morning and evening.



## DR. TILBURY FOX, OF LONDON.

In the treatment of acne, it is necessary, first of all, to insure cleanliness; secondly, to remove any cause of debility present, correct menstrual deviations, cure dyspepsia, etc., and especially to prevent constipation. These preliminary cares are *sine qua non* to success. Then, in the simpler cases, which exhibit little inflammatory action, friction and gentle stimulation may be had recourse to; borax, soda and calamine lotions, or the following, will suffice:—

1410. R. Hydrargyri chloridi corrosivi, gr.ij  
Emulsionis amygdalæ amaræ, f.ʒviij. M.

In the severer forms much more remains to be done. The general condition of the health must be improved, and whatever special indications which are present be fulfilled. Locally, if there be much inflammation, warm poultices, hot vapor douches, and warm lead lotions are called for. When these have allayed the irritation, absorbents may be used—oxide of zinc lotion or the oxide of zinc and glycerine. Our author generally prescribes:—

1411. R. Hydrargyri chloridi corrosivi, gr.ij  
Sodæ biboratis, ʒss  
Glycerinæ, f.ʒj  
Aquæ, f.ʒviij. M.

To be frequently used.

## PROF. HEBRA, OF VIENNA.

Our author treats acne as follows: He gives vapor douches to the face, applies soft soap, or—

1412. R. Potassæ causticæ, ʒj  
Aquæ, Oj. M.

In other cases he washes the face with soft soap, and at night applies a paste made as follows:—

1413. R. Sulphuris, ʒj  
Alcoholis, f.ʒj. M.

To be painted on by means of a camel-hair pencil. This is removed in the morning by means of soap. Cocoa butter is kept on all day.

He sometimes uses,

1414. R. Hydrargyri chloridi corrosivi, gr.v  
Alcoholis, f.ʒj. M.

To be applied with a compress for two hours.



At other times, he applies, two or three times a day,

1415. R. Hydrargyri chloridi corrosivi, gr. j  
Tincturæ benzoini, f. ʒij  
Aquæ, f. ʒvj. M.

## ALOPECIA.

DR. L. DUNCAN BULKLEY, NEW YORK.

1416. R. Tincturæ capsici, āā f. ʒss  
Tincturæ cantharidis, f. ʒij  
Tincturæ nucis vomicæ, f. ʒss  
Glycerinæ, ad. f. ʒiv. M.  
Aquam,

Use as a lotion, to be well rubbed in, night and morning, in *alopecia areata*.

Dr. BULKLEY does not believe this a parasitic disease. The prognosis is fair, but there is a tendency to relapse.

When the baldness is the result of *seborrhæa*, as shown by the abundant dandruff, use—

1417. R. Tincturæ cantharidis, f. ʒj  
Unguenti hydrargyri nitratis, ʒij  
Unguenti aquæ rosarum, ʒvj  
Olei amygdalæ amaræ, gtt. ij. M.

As a stimulant to the loss of hair after febrile diseases, simple debility or syphilis, the following is serviceable:—

1418. R. Tincturæ cantharidis, f. ʒij  
Tincturæ capsici, āā f. ʒss  
Olei ricini, ad. f. ʒiv. M.  
Aquæ coloniensis,

Rub on the scalp with a bit of flannel, night and morning. The cantharides should be increased till a slight tingling follows the application.

DR. BOUCHUT, PARIS.

1419. R. Zinci chloridi, ʒijss  
Beef marrow, ʒj. M.

The head is shaved, and frictions made morning and evening with this pomade, until a minute purulent eruption is produced. The frictions are then stopped, to be recommenced when the eruption has disappeared.



1420. R. Tincturæ cantharidis, f.ʒj  
 Olei ricini, f.ʒss  
 Purified beef marrow, ʒj  
 Spiritûs amygdalæ amaræ  
 Spiritûs limonis, āā gtt.xij. M.

To be rubbed, morning and evening, on the scalp.

1421. R. Olei tiglli, ℥xv-xxx  
 Olei amygdalæ dulcis, f.ʒss. M.

Shave the head, and rub this pomade on the scalp twice a day, until an eruption is produced.

1422. R. Tincturæ iodidi, f.ʒiss  
 Extracti hyoseyami, ʒiv  
 Beef marrow, ʒj  
 Spiritûs bergamii, q. s. M.

To be rubbed on the scalp, morning and evening, when falling of the hair takes place after a confinement or a serious illness. In addition, preparations of iron, bark, and in some cases of arsenic, are to be given internally.

#### MR. ERASMUS WILSON, LONDON.

1423. R. Tincturæ cantharidis, f.ʒiss  
 Spiritûs rosmarini,  
 Spiritûs lavandulæ, āā gtt.x.  
 Eau de cologne, f.ʒiss. M.

Rub gently the scalp with a piece of flannel dipped in this mixture, in order to stimulate the growth of the hair.

1424. R. Tincturæ cantharidis, f.ʒj-ij  
 Cupri acetatis, gr.ij  
 Olei amygdalæ dulcis,  
 Olei ricini, āā f.ʒvj  
 Spiritûs lavandulæ, to perfume. q. s. M.

Apply every evening a small quantity of this liniment to the roots of the hair, in order to prevent them from falling, and to stimulate their growth.

## ECZEMA.

#### DR. L. DUNCAN BULKLEY, NEW YORK.

This author states (*Transactions American Medical Association*, 1875) that acute eczema can seldom be abated, and we must aim at a soothing treatment only. For this purpose he recommends lotions which on evaporating leave a finely-divided powder on the surface, *e. g.* :—



1425. R.	Zinci carbonatis,	℥ij-iv	
	Zinci oxidi,	℥j-ij	
	Glycerinæ,	f.℥ij	
	Liquoris picis alkalini,	f.℥j	
	Aquæ rosæ,	f.℥iv.	M.

When exudation has ceased, ointments are useful, of which simple mutton suet is as good as any.

The *liquor picis alkalinus* mentioned above is praised by Dr. BULKLEY as a very valuable preparation in chronic eczema. The formula is:—

1426. R.	Picis liquidæ,	℥ij	
	Potassæ causticæ,	℥j	
	Aquæ destillatæ,	f.℥v.	

Dissolve the stick potassa in the water, and then gradually add the solution to the tar, with rubbing in a mortar.

It may be applied diluted, undiluted, or in an ointment. For constitutional treatment, alkalies and cod-liver oil are needed, but arsenic has been greatly overrated.

#### DR. LOUIS A. DUHRING, OF PHILADELPHIA.

This writer, in some remarks on *eczema rubrum*, says that in many cases local treatment alone is all-sufficient. In the earlier stages of the disease, when there is considerable watery exudation, the following formula is serviceable:—

1427. R.	Hydrargyri chloridi mitis,	℥ss	
	Unguenti zinci oxidi,	℥j.	M.

Or the following:—

1428. R.	Bismuthi subnitratis,	℥ss	
	Unguenti zinci oxidi,	℥j.	M.

When the itching is severe, the following may be employed, whether the eruption be moist or dry:—

1429. R.	Acidi carbolici,	℥x	
	Unguenti zinci oxidi,	℥j.	M.

This will usually relieve the pruritus. Another ointment which generally acts very well:—

1430. R.	Pulveris camphoræ,	ad. ℥j	
	Unguenti zinci oxidi,	℥j.	M.

Half a drachm to a drachm of glycerine added to this will often prove advantageous.



All these may be called soothing applications, and are to be employed during the acute stages of the affection. They should be applied morning and evening, the excess of the former application being gently removed, with a soft cloth, previous to applying a fresh quantity.

After two or three weeks of treatment, improvement, as a rule, ceases, and a change must be made. The following ointment is usually useful at this stage:—

1431. R. Picis liquidæ, ℥j  
Cerati simplicis, ℥j. M.

Or some other ointment, as the dilute nitrate of mercury, or red oxide of mercury ointment, may be employed.

DR. TILBURY FOX, LONDON.

1432. R. Zinci oxidi, āā  
Calaminæ preparatæ, ℥j  
Glycerinæ, f. ℥iss  
Aquæ rosæ, q. s. ad. ℥vj. M.

Use in eczema, generally when the surface is tender and red. The part should be lightly bandaged with this lotion, which should be used very freely, so as to keep the surface moist, and exclude the air if possible. If the itching or sensation of burning is bad, the following may be used:—

1433. R. Potassii cyanidi, gr iij-v  
Adipis, ℥j. M.

In the second, or exudative stage, ointments should be generally avoided. In proportion as the heat or itching, the redness or swelling disappear, astringents should be employed; but whenever there are signs of irritation, soothing and emollient remedies should be used externally. This treatment, together with aperient tonics, generally controls the discharge. The diseased parts should be most gently handled at all times. Soap should not be used, and no friction with the clothes allowed. When the third or scaly stage is reached, it is often still highly necessary to avoid the use of any application which acts as an irritant, for irritability is one of the chief characteristics of the skin of an eczematous subject.

Astringents are generally called for in simple forms of eczema, such as is seen in the scalp. Our author prefers, in connection with tonics, the use at the outset of—



- |          |  |                             |    |
|----------|--|-----------------------------|----|
| 1434. R. | Sodæ biboratis,<br>Plumbi acetatis,<br>Glycerinæ,<br>Adipis, | ℥ij<br>gr.ij<br>f.℥j<br>℥j. | M. |
|----------|--|-----------------------------|----|

A stronger ointment is—

- |          |  |                      |    |
|----------|--|----------------------|----|
| 1435. R. | Unguenti hydrargyri nitratis,<br>Glycerinæ,<br>Adipis, | ℥ij<br>f.℥ij<br>℥ij. | M. |
|----------|--|----------------------|----|

Where thickening and induration finally remain, these may be regarded as secondary and ordinary results of congestion, and should be treated accordingly, by revulsives. Our author often uses—

- |          |                                       |              |    |
|----------|---------------------------------------|--------------|----|
| 1436. R. | Argenti nitratis,<br>Ætheris nitrici, | ℥ij<br>f.℥j. | M. |
|----------|---------------------------------------|--------------|----|

Or,

- |          |                                       |                  |    |
|----------|---------------------------------------|------------------|----|
| 1437. R. | Olei juniperis pyrolignei,<br>Adipis, | f.℥j-iiij<br>℥j. | M. |
|----------|---------------------------------------|------------------|----|

Should this not suffice, order—

- |          |                                     |                |    |
|----------|-------------------------------------|----------------|----|
| 1438. R. | Hydrargyri iodidi rubri,<br>Adipis, | gr.v-xv<br>℥j. | M. |
|----------|-------------------------------------|----------------|----|

The above line of procedure holds good in the case of children; but here, in addition, an absorbent powder is serviceable. It may be—

- |          |   |            |    |
|----------|---|------------|----|
| 1439. R. | Zinci oxidi,<br>Calaminæ preparatæ,<br>Amyli, | āā    ℥ss. | M. |
|----------|---|------------|----|

Our author prefers a lead or calamine lotion, with exclusion of air, and at night a layer of elder-flower ointment, to anything else, as simple applications in *eczema infantilis*.

- |          |                                    |            |    |
|----------|------------------------------------|------------|----|
| 1440. R. | Pulveris aluminis,<br>Infusi rosæ, | ℥ij<br>Oj. | M. |
|----------|------------------------------------|------------|----|

Used in *eczema sine crustis*.

- |          |  |                                  |    |
|----------|--|----------------------------------|----|
| 1441. R. | Potassæ cyanidi,<br>Sulphuris,<br>Potassæ bicarbonatis,<br>Cocci cacti,<br>Adipis, | gr.v<br>āā    ℥ss<br>gr.j<br>℥j. | M. |
|----------|--|----------------------------------|----|

In *eczema* with *pruritus*.



1442. R. Camphoræ, 3ss  
 Alcoholis, to dissolve, q. s.  
 Add  
 Zinci oxidi,  
 Amyli, āā 3ss. M.
- Use as a powder to allay the *burning heat of eczema*.
1443. R. Camphoræ, gr.viiij  
 Tincturæ conii, f 3ij  
 Cerati adipis, 3j. M.
1444. R. Saponis mollis, 3j.  
 Aquæ bullientis, Oj. M.
- Scent with some essential oil, and use in the second stage of eczema, to counteract the infiltration.
1445. R. Saponis mollis,  
 Alcoholis,  
 Olei cadini, āā f 3j.  
 Olei lavandulæ, f.3iss. M.

This preparation is more elegant than Hebra's "*Tinctura saponis viridis cum pice*."

1446. R. Olei juniperis pyrolignei, f.3j-viiij  
 Adipis, 3j.  
 Mix with 3ss of mutton suet.
1447. R. Picis liquidæ, f.3j  
 Camphoræ, gr.x  
 Adipis, 3x. M.

## ERYTHEMA.

DR. L. DUNCAN BULKLEY, NEW YORK.

In *erythema simplex*, as well as in other acute skin diseases, this author has derived great benefit from the use of "Startin's mixture":—

1448. R. Magnesiae sulphatis, 3j  
 Ferri sulphatis, 3j  
 Acidi sulphurici aromatici, f.3ss  
 Tincturæ gentianæ, f.3j  
 Aquam, ad. f.3ij. M.
- One teaspoonful after meals.

J. M. DA COSTA, M. D., PHILADELPHIA.

1449. R. Unguenti picis,  
 Unguenti hydrargyri oxidi rubri, āā 3ss. M.
- To be applied morning and evening, in *chronic erythema*. Internally,  
*Donovan's solution*, gtt.x, thrice daily.



In *acute erythema*, a useful sedative ointment is:—

1450. R.	Liquoris plumbi subacetatis,	āā	f. 3j	
	Glycerinæ,		3vj.	M.
	Cerati simplicis,			

Or,

1451. R.	Cerati plumbi subacetatis,	3vj		
	Glycerinæ,	f. 3ij.		M.

PROF. J. LEWIS SMITH, NEW YORK.

1452. R.	Pulveris zinci oxidi,			
	Lycopodii,	āā	3j.	M.

To be dusted occasionally over the inflamed surface in the *erythema intertrigo* of infancy, when the inflammation is severe and accompanied by moisture.

In slight cases of this affection, due to friction of opposing surfaces of the skin, or to the irritation of certain discharges, if not accompanied by moisture and destruction of the epidermis, dusting the surface thickly with *powdered starch*, so as to prevent attrition, will be all the treatment required. The disease may also be satisfactorily treated in most cases by the following wash:—

1453. R.	Cupri sulphatis,	gr. ij—iv	
	Aquæ rosæ,	f. 3ij.	M.

To be kept constantly applied by means of linen saturated with it and pressed between the inflamed surfaces.

When this disease is caused by frequent acid stools, remedies which cure the diarrhoeal affection also cure the erythema.

## FAVUS.

DR. HENRY G. PIFFARD, OF NEW YORK.

The treatment is to remove the crusts, to epilate the part, and thoroughly rub in a solution of corrosive sublimate, gr. ij to water f. 3j. Sulphur or turpeth ointment, gr. xx—xxx to lard 3j, will destroy the parasite upon the surface, but in a few weeks the disease will return.

DR. TILBURY FOX, LONDON.

The hair should be cut short; the crusts must be removed by soaking with—



1454. R. Sodæ hyposulphitis,  $\mathfrak{z}iv$   
 Glycerinæ,  $f.\mathfrak{z}ij$   
 Aquæ, ad.  $f.\mathfrak{z}vj$ . M.

Or, if preferred, with—

1455. R. Sodæ hyposulphitis,  $\mathfrak{z}iij$   
 Acidi sulphurosi diluti,  $f.\mathfrak{z}ss$   
 Aquæ, ad. Oj. M.

When the scalp is cleaned, each hair must be extracted one by one, and parasiticides applied at once.

Our author prefers for this purpose—

1456. R. Sodæ biboratis,  $\mathfrak{z}j$   
 Hydrargyri chloridi corrosivi,  $gr.x-xx$   
 Aquæ,  $f.\mathfrak{z}ij-iij$ . M.

A certain portion of the surface should be cleaned each day, and the whole head meanwhile kept moistened with sulphurous acid lotion.

## HERPES.

DR. L. DUNCAN BULKLEY, NEW YORK.

In *herpes zoster* this author has found the following most efficient in controlling the neuralgic pain:—

1457. R. Zinci phosphidi,  
 Extracti nucis vomicæ,  $\bar{a}\bar{a}$   $gr.\frac{1}{2}$ . M.  
 This amount, in one pill, every three hours.

For local treatment, he dusts the whole of the affected part with powdered starch, then dusts a wide bandage of muslin with starch, and covers with it the diseased surface. This bandage is not to be removed for a week or longer.

TILBURY FOX, M. D., LONDON, PHYSICIAN TO THE SKIN DEPARTMENT,  
 CHARING-CROSS HOSPITAL, ETC.

1458. R. Acidi carbolici,  $\mathfrak{z}ij$   
 Glycerinæ,  $f.\mathfrak{z}j$   
 Aquæ rosæ, ad.  $f.\mathfrak{z}viiij$ . M.

Use in *ring-worm*, of the surface especially.



## IMPETIGO.

J. M. DA COSTA, M. D., PHILADELPHIA.

1459. R. Unguenti picis,  
 Unguenti hydrargyri oxidi rubri, ʒʒ ʒss. M.  
 For *impetigo*. To be rubbed in morning and night.

If this fails, apply—

1460. R. Cupri sulphatis,  
 Aquæ, ʒi-ij f.ʒj. M.

Or use the solid sulphate of copper.

TILBURY FOX, M. D., LONDON, M. R. C. P.. ETC.

1461. R. Plumbi acetatis, gr.xv  
 Acidi hydrocyanici diluti, ʒxx  
 Alcoholis, f.ʒss  
 Aquæ, f.ʒvj. M.

Use in *impetigo*, as a lotion.

Subsequently,

1462. R. Hydrargyri ammoniati ʒj  
 Olei olivæ, f.ʒj  
 Adipis, ʒj  
 Olei rosæ, ʒvj  
 Tincturæ tolutani, gtt.xx. M.

As an ointment.

## LEPRA.

J. M. DA COSTA, M. D., PHILADELPHIA.

1463. R. Sodæ sulphitis, ʒss  
 Aquæ, f.ʒvj. M.  
 To be used as a wash, in *lepra*.

The patient at the same time being ordered, internally—

1464. R. Liquoris potassæ arsenitis, ʒl  
 Tincturæ gentianæ compositæ, f.ʒiv. M.  
 A dessertspoonful thrice daily.

In true leprosy, no cure is known. Of late, much has been said of "gurjun oil," obtained from a species of *Dipterocarpus*, and of



cashew-nut oil, from the fruit of the *Anacardium occidentale*. Dr. VON SOMEREN (*Medical Times and Gazette*, April, 1874) believes the latter tends to disperse the tubercles.

## LICHEN.

DR. L. DUNCAN BULKLEY, NEW YORK.

The eruption of acute lichen arises from digestive diseases, and will yield to an active cathartic, followed by a course of "Startin's mixture" (F. 1448). To check the itching, a lotion may be used of an ounce of bicarbonate of soda to a pint of water.

ERASMUS WILSON, F. R. S., ETC., LONDON.

The constitutional treatment of lichen requires mild aperients, followed by bitters and mineral acids, by chalybeates and quinine. In chronic cases arsenic will generally effect a cure.

The local treatment of lichen calls for the use of ablutions with the juniper-tar soap, tepid bathing, and anti-pruriginous and moderately stimulating lotions.

But the most certain and powerful *anti-pruriginous lotion* is:—

1465. R.	Olei juniperi pyrolignici,		
	Alcoholis,	aa	f. 3j
	Aquæ,		f. 3vj. M.

This is very successful in *lichen urticatus*.

DR. TILBURY FOX, LONDON.

In *lichen circumscriptus*, an alkaline course is beneficial; and if there be any tendency to rheumatism, bromide of potassium may be given in addition. In this variety of lichen the following ointments are serviceable:—

1466. R.	Unguenti hydrargyri nitratis,	3ij	
	Adipis,	3vj.	M.
1467. R.	Unguenti hydrargyri ammoniati,	3j	
	Adipis,	3vij.	M.

In *lichen agrius*, maceration with glycerine, or the following, is useful:—



1468. R. Sodæ biboratis, 3j-ij  
Glycerinæ, f.3j  
Adipis, 3j. M.

Or, paint with—

1469. R. Argenti nitratis, gr.ij-x  
Aquæ, f.3j. M.

When the disease is very chronic, and there is much thickening of the skin in general, and in *lichen pilaris*, a course of bicyanide of mercury is necessary.

1470. R. Hydrargyri bicyanidi, gr.j  
Tincturæ cinchonæ compositi, f.3iv. M.  
A dessertspoonful thrice daily.

This will cause an absorption of the plastic material poured out into the derma; and local stimulation to the skin, with sulphur vapor baths, may then be employed.

PROF. HARDY, FACULTÉ DE MÉDECINE DE PARIS.

1471. R. Hydrargyri chloridi mitis, gr.xv  
Acidi tannici, gr.xxx-l  
Adipis, 3j. M.

To be applied several times a day in lichen. Alcoholic and vapor baths. Bitter infusions with bicarbonate of soda.

1472. R. Potassii cyanidi, gr.4-iss  
Adipis, 3j. M.

This ointment is useful in calming the itching occasioned by lichen.

## LUPUS.

PROF. KAPOSÍ, VIENNA.

1473. R. Saponis viridis, lb.ij  
Alcoholis, lb.j. M.

Let it stand twenty-four hours, filter, and add—

Spiritus lavandulæ, f.3ij.

This is the so-called *spiritus saponatus kalinus*. Prof. KAPOSÍ uses it by repeated frictions on erythematous lupus, and states that he has caused the disappearance of the lesion without the slightest trace.



DR. HENRY G. PIFFARD, NEW YORK CITY.

1474. R. Saponis viridis, ℥viij  
 Glycerinæ,  
 Olei cadini, f.℥ij  
 Olei rosarum, q. s. M.

Use, with repeated and energetic friction, in erythematous lupus.

DR. TILBURY FOX, LONDON.

In the *non-exedent* form, this author prefers the acid nitrate of mercury, or—

1475. R. Hydrargyri iodidi rubri, gr.x-xx  
 Glycerinæ, f.℥ss. M.

Or,

1476. R. Equal parts of potassa fusa and water.

In the *exedent* form, the solid silver caustic is the best. It must be deliberately and freely applied, chloroform being given, if necessary. The following is preferred by some:—

1477. R. Zinci chloridi, ℥iv  
 Antimonii chloridi, ℥ij  
 Amyli, ℥j  
 Glycerinæ, q. s. M.

Others, again, commend nitric acid, mixed into a paste with sulphur, and laid on with a spatula. After caustic application, a poultice should be applied, and the surface dressed with a soothing ointment.

In all cases where the disease has been arrested and tends to heal, any mild stimulant or astringent application may be used, such as—

GLYCERINUM ACIDI TANNICI.

1478. R. Acidi tannici, ℥j  
 Glycerinæ, f.℥iv.

Rub together in a mortar, then transfer the mixture to a porcelain dish and apply a gentle heat until complete solution is effected.

Or,

1479. R. Argenti nitratis, gr.xx-xxx  
 Spiritus ætheris nitrosi, f.℥j. M.

It must be remembered that local remedies vary in efficiency in proportion to any improvement in the general health brought about by internal remedies. The disease *can* be made much worse by caustics.



## MENTAGRA.

DR. HENRY S. PURDON.

1480. R. Acidi chromici, 3j  
 Aquæ destillatæ, f.3j. M.  
 A useful application in sycosis menti, and other parasitical skin affections.

DR. VON VEIEL, OF CANSTADT.

This practitioner usually cures barber's itch in four weeks. He cuts the hairs short, removes crusts, and rubs in—

1481. R. Saponis viridis, 3ss  
 Picis, 3j. M.

He then removes the hairs with the forceps, and applies acetic acid, finishing with sulphur ointment.

DR. JEANNEL, PARIS.

1482. R. Hydrargyri chloridi corrosivi, gr.vj  
 Adipis, 3j.

Dissolve the corrosive sublimate in a little water, and incorporate with the lard. After having removed the crusts of the mentagra by the aid of poultices and warm fomentations, apply, morning and evening, a small quantity of this ointment.

DR. DAUVERGNE, PARIS.

1483. R. Ferri sulphatis, gr.iss  
 Carbonis ligni, 3j.

Reduce to a fine powder, and mix carefully. Cover the affected chin with this powder in the evening.

1484. R. Ferri sulphatis, gr.xv-xxx  
 Aquæ, f.3ij. M.

To be employed in lotions. But at the commencement, when the affection is acute, recourse must be had to poultices and repeated purgatives. Later on, vapor douches every other day to the affected parts are productive of benefit.

## PITYRIASIS.

DR. HENRY G. PIFFARD, OF NEW YORK.

This specialist has had the best success in this disease by a preliminary green soaping for several days, followed by tar ointment for a week or two, succeeded by a mercurial ointment (white pre-



cipitate or nitrate), and finally the prolonged use of some bland oily preparation, as—

1485. R. Hydrargyri sulphatis flavæ, gr. xv  
Unguenti rosarum, ℥j. M.

J. M. DA COSTA, M. D., PHILADELPHIA.

1486. R. Unguenti hydrargyri nitratis, aa ℥ss. M.  
Cerati simplicis,

For *pityriasis of the scalp*. To be applied morning and night. The hair should be cut short, and poultices applied before using this ointment. The scalp is to be kept clean with soap.

TILBURY FOX, M. D., LONDON, PHYSICIAN TO THE SKIN DEPARTMENT,  
CHARING-CROSS HOSPITAL.

1487. R. Creasoti, gtt. xl  
Glycerinæ, f. ℥iij  
Aquæ, f. ℥vj-viiij. M.

Use in *pityriasis*.

1488. R. Hydrargyri ammoniati, ℥j  
Olei olivæ, f. ℥j  
Adipis, ℥j  
Olei rosæ, m. vj  
Tincturæ tolutani, gtt. xx. M.

Use in *pityriasis capitis*.

## PRURIGO.

### ANTI-PRURITICS.

The best applications suited for the temporary relief of pruritus are *vinegar*, *lemon juice*, *weak solution of corrosive sublimate*, *tincture and watery solution of opium*, *creasote ointment and lotion*, *tar ointment*, and especially that of *juniper tar*, *ointment of opium with camphor*, the *diluted nitrate of mercury ointment*, *ointment of lime*, *ointment of cyanide of potassium*, *lotion of hydrocyanic acid*, *aconite*, *acetate of ammonia*, *sulphuret of potash*, *chlorate of soda*, etc.

The following formulæ are all useful:—

1489. R. Calcis hydratis, ℥j  
Sodæ carbonatis, ℥ss  
Tincturæ opii, f. ℥ss  
Adipis, ℥j. M.



- |          |  |                                     |    |
|----------|--|-------------------------------------|----|
| 1490. R. | Tincturæ opii,<br>Sulphuris sublimati,<br>Zinci oxidi,<br>Olei amygdalæ dulcis,<br>Adipis, | f.ʒss<br>ʒss<br>ʒj<br>f.ʒj<br>ʒiij. | M. |
| 1491. R. | Hydrargyri sulphureti rubri,<br>Tincturæ opii,<br>Sulphuris sublimati,<br>Adipis,          | ʒij<br>f.ʒij<br>ʒss<br>ʒv.          | M. |
| 1492. R. | Ammoniæ muriatis,<br>Pulveris hellebori albi,<br>Adipis,                                   | ʒj<br>ʒss<br>ʒiij.                  | M. |
- For local prurigo.

A local remedy, frequently of service in allaying the itching of *prurigo senilis*, is glycerine, applied with a sponge.

ERASMUS WILSON, F. R. S., LONDON, ETC.

Arsenic, properly administered and watched, may be regarded as a specific in prurigo. Much may be accomplished toward the restoration of a healthy condition of the skin by ablutions with the juniper-tar and carbolic-acid soap, frictions and manipulations with the hand, after the manner of the shampooer, the tepid bath, the sweating bath, used with discretion, and moderately stimulating local applications.

## PSORIASIS.

DR. HENRY G. PIFFARD, OF NEW YORK.

This writer concedes *arsenic* a great repute in psoriasis, but believes that in the best practice it is being replaced by other means. *Balsam of copaiva*, four to eight capsules daily, is an efficient remedy. *Carbolic acid*, gr. j–iij thrice daily, is successful in some cases.

Local applications are, strong alkalies, tar, emollients and baths.

J. M. DA COSTA, M. D., PHILADELPHIA.

- |          |  |                     |    |
|----------|--|---------------------|----|
| 1493. R. | Unguenti hydrargyri oxidi rubri,<br>Unguenti hydrargyri,<br>Glycerinæ, | āā<br>ʒij<br>f.ʒss. | M. |
|----------|--|---------------------|----|

For psoriasis; to be rubbed in morning and evening, when there are no vesicles, after washing the parts with castile soap.



Internally,

1494. R. Liquoris arsenici et hydrargyri iodidi, f.  $\frac{3}{4}$ ss  
 Extracti dulcamaræ fluidi, f.  $\frac{3}{4}$ ijss. M.  
 A teaspoonful thrice daily, after meals.

Avoid fatty articles of diet and those highly salted. The most important thing in skin diseases is to determine, not so much their character externally, as to ascertain with what internal conditions they are associated.

In the acute stages of psoriasis, the following may be used :—

1495. R. Cerati plumbi subacetatis,  $\frac{3}{4}$ ij  
 Glycerinæ, f.  $\frac{3}{4}$ j  
 Cerati simplicis,  $\frac{3}{4}$ iv. M.

Attention should be paid to the digestive system. Then, after the acute inflammatory condition has subsided, the red precipitate ointment (F. 1493) may be employed, or—

1496. R. Sulphuris iodidi, gr. x  
 Adipis,  $\frac{3}{4}$ j. M.  
 To be rubbed in morning and evening.

Or,

1497. R. Unguenti hydrargyri nitratis,  
 Unguenti picis,  
 Cerati adipis,  $\frac{3}{4}$ ss. M.

Internally, Donovan's solution, combined as above (F. 1494).

Or,

1498. R. Liquoris arsenici et hydrargyri iodidi, f.  $\frac{3}{4}$ ij  
 Tincturæ cinchonæ compositæ, f.  $\frac{3}{4}$ iiij. M.  
 A dessertspoonful thrice daily.

TILBURY FOX, M. D., LONDON, PHYSICIAN TO THE SKIN DEPARTMENT,  
 CHARING-CROSS HOSPITAL.

1499. R. Argenti chloridi, gr. v-xx  
 Cerati adipis,  $\frac{3}{4}$ vj. M.  
 A useful ointment in this affection.

If the disease is slight and localized to a few spots only, treatment may be commenced at once with tarry applications, for the scales are thereby removed sufficiently well.



1500. R. Olei juniperis pyrolignei, f.ʒij  
 Olei olivæ, f.ʒj  
 Adipis, ʒj. M.  
 To be used night and morning.

Or,

1501. R. Creasoti, gtt.vj  
 Unguenti hydrargyri, gr.xv  
 Adipis, ʒij. M.

In chronic cases, with thickening of the patches, or where there is much elevation of the disease, as in the *nummular* variety, a more decided impression may be produced by—

1502. R. Picis liquidæ,  
 Alcoholis, āā f.ʒij. M.  
 To be rubbed in with flannel.

When there is a tendency to “discharge,” use—

1503. R. Unguenti hydrargyri nitratis, ʒij  
 Glycerinæ, f.ʒij  
 Linimenti camphoræ, f.ʒj. M.

PROF. MORIZ KOHN.

1504. R. Acidi carbolici, gr.xv  
 Pulveris glycyrrhizæ et syrupi q. s. M.

Divide into twenty pills. Give at first six to nine a day, and increase gradually to twenty a day.

Prof. HERBA has also obtained good results from these pills in psoriasis. But it must not be forgotten in using them that the exhibition of large doses of carbolic acid irritates the kidneys and provokes the passage of albumen in the urine.

1505. R. Sulphuris loti,  
 Extracti gentianæ, āā ʒss  
 Althæa pulveris, q. s. M.

Divide into twenty pills. From two to ten a day, in squamous skin affections. Sulphur baths.

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## ROSACEA.

DR. LOUIS A. DUHRING, OF PHILADELPHIA.

This writer observes that *rosacea* is a disease of the blood vessels, especially of the nose, and is not a species of acne, though they



often occur together. Cases with this disfiguring malady go about not cured, because physicians tell them nothing can be done for them. Dr. DUHRING has had excellent results from stimulating washes and ointments, especially from—

1506. R.	Sulphuris loti,	$\frac{3j}{3j}$	M.
	Adipis,		
Rub on the parts twice daily.			

Tonics, aperients, a carefully-regulated diet, etc., should be remembered, if necessary. Three months should effect a cure.

DR. TILBURY FOX, LONDON.

In *acne rosacea*, diet and good hygiene are of vast importance. If there be many varicose vessels, they may be cut across, the incisions never being deeper than two lines. Cold water will stay the bleeding, and collodion may be subsequently used to contract and heal the incisions. Acids and pepsin, given internally, do much good. Much has been said of the efficacy of the iodo-chloride of mercury in *acne rosacea* and *indurata*. The following formula is used:—

1507. R.	Hydrargyri iodo-chloridi,	gr. v—xv	
	Adipis,	$\frac{3j}{3j}$	M.

The ointment requires care, as it produces a good deal of irritation.

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## SCABIES.

DR. HENRY G. PIFFARD, NEW YORK.

Put the patient into a warm bath, let him soak half an hour, then have him rubbed all over, except the face, with common soft-soap and a scrubbing brush. Then rinse with clean water, dry, and rub in, with strong friction, the following:—

1508. R.	Potassii iodidi,	$\frac{3j}{3j}$	
	Unguenti sulphuris,	$\frac{3j}{3j}$	M.

Let him go to bed, and the next morning put on clean underclothes. One such application is usually sufficient.

Sometimes the above treatment must be modified for one more mild.



Dr. McCALL ANDERSON recommends the following, as less irritating than ordinary sulphur ointment:—

1509. R. Olei cadini,  
Sulphuris præcipitatæ,      āā      ℥iij  
Glycerinæ amyli,      f. ℥vj  
Adipis benzoati,      ℥iij.      M.

UNGUENTUM SULPHURIS CUM ANTHEMIDE.

1510. R. Unguenti anthemidis,      ℥viij  
Sulphuris sublimati,      ℥j  
Potassæ carbonatis,      ℥ss.      M.

This is a mild ointment for scabies, and well adapted for persons of sensitive skin, and for children.

## TINEA.

DR. L. DUNCAN BULKLEY, OF NEW YORK.

1511. R. Unguenti hydrargyri nitratis,      ℥ij  
Unguenti aquæ rosæ,      ℥vj.      M.

Well rubbed in, morning and night, in ringworm of the body, *tinea circinnata*.

DR. TILBURY FOX, OF LONDON.

In *ringworm of the scalp*, *tinea tonsurans*, this writer commends in medium cases, after clipping the hair off very short, *Coster's paste*, *i. e.*:—

1512. R. Iodinii,      ℥ij  
Olei picis liquoris decolorati,      f. ℥j.      M.

This applied once or twice, at intervals of four or five days, effects a cure. As matters mend, it is only necessary to use some parasiticide ointment, the white precipitate, sulphur, or—

1513. R. Hydrargyri ammoniati,  
Hydrargyri nitrici-oxidi levigati,      āā      gr. vj  
Adipis,      ℥j.      M.

Or,

1514. R. Sodæ boratis,      ℥ij  
Aquæ,      ad. f. ℥j.      M.



## MILDER PARASITICIDES (FOR ORDINARY USE).

1515. R. Potassii sulphureti,  $\mathfrak{z}\text{ij}$   
 Saponis mollis,  $\text{f.}\mathfrak{z}\text{j}$   
 Aquæ calcis,  $\text{f.}\mathfrak{z}\text{viij}$   
 Alcoholis,  $\text{f.}\mathfrak{z}\text{ij}$ . M.

Used in the various forms of *tinea*, *scabies*, etc.

1516. R. Hydrargyri chloridi corrosivi,  $\text{gr.ij-iv}$   
 Ammoniaë muriatis,  $\mathfrak{z}\text{ss}$   
 Alcoholis,  $\text{f.}\mathfrak{z}\text{ss}$   
 Aquæ rosæ,  $\text{ad. f.}\mathfrak{z}\text{vj}$ . M.

In *tinea versicolor*, *scabies*, *prurigo*.

1517. R. Acidi carbolici fluidi,  $\text{f.}\mathfrak{z}\text{ij}$   
 Glycerinæ,  $\text{f.}\mathfrak{z}\text{j}$   
 Aquæ rosæ,  $\text{ad. f.}\mathfrak{z}\text{viij}$ . M.

Use in *ringworm* of the surface especially.

Also, in the same affection,

1518. R. Sodæ biboratis,  $\mathfrak{z}\text{ij}$   
 Glycerinæ,  $\text{f.}\mathfrak{z}\text{j}$   
 Adipis,  $\mathfrak{z}\text{j}$ . M.

1519. R. Hydrargyri sulphatis flavi,  $\mathfrak{z}\text{ss}$   
 Olei amygdalæ dulcis,  $\text{aa}$   
 Glycerinæ,  $\text{f.}\mathfrak{z}\text{ij}$   
 Adipis,  $\mathfrak{z}\text{ij}$ . M.

Used in *tinea*.

1520. R. Unguenti hydrargyri nitratis,  $\mathfrak{z}\text{ss}$   
 Sulphuris,  $\mathfrak{z}\text{ij}$   
 Creasoti,  $\text{m}_x$   
 Adipis,  $\mathfrak{z}\text{j-ij}$ . M.

Use in ordinary *ringworm* and *tinea sycosis*.

## URTICARIA.

WILLIAM AITKEN, M. D., EDINBURGH.

In the treatment of nettle-rash, emetics and purgatives are to be employed in the first instance ; afterward faulty digestion is to be corrected. The surface of the eruption may be dusted with flour, or the following lotion may be used :—

1521. R. Ammoniaë carbonatis,  $\mathfrak{z}\text{j}$   
 Plumbi acetatis,  $\mathfrak{z}\text{ij}$   
 Aquæ rosæ,  $\text{f.}\mathfrak{z}\text{viij}$ . M.



ERASMUS WILSON, F. R. S., LONDON, ETC.

In *chronic* urticaria, the deranged functions are to be restored. The administration of the mineral acids with a bitter is serviceable. Very chronic cases require arsenic. The following may be used:—

1522. R. Liquoris arsenici chloridi, f.℥ss  
 Acidi muriatici diluti,  
 Aquæ aurantii florum, aa f.℥ij  
 Syrupi simplicis, f.℥ij. M.  
 A tablespoonful to be taken alone or in water, *with the meals*, three times a day.

The local treatment consists in the use of remedies for the purpose of relieving the itching, tingling, and smarting. For this purpose employ sponging with hot water; ablution with the juniper-tar or carbolic-acid soap; frictions with—

## UNGUENTUM PICIS JUNIPERI.

1523. R. Olei juniperi pyrolignici, f.℥j  
 Adipis purificatæ, ℥ij  
 Sevi ovilli purificati, ℥vj. M.  
 Melt with gentle heat and make an ointment.

This is an elegant preparation. It may be used of the above strength or diluted. Or the

## LOTIO HYDRARGYRI BICHLORIDI.

1524. R. Amygdalæ amaræ, No. xx  
 Aquæ destillatæ, f.℥vj  
 Contuse and mix together, then strain and add  
 Hydrargyri chloridi corrosivi, gr. xvj  
 Spiritus vini rectificati, f.℥ij. M.

Or the

## LOTIO ACIDI CARBOLICI.

1525. R. Acidi carbolici fluidi, f.℥ss-j  
 Glycerinæ, f.℥ss  
 Aquæ destillatæ, f.℥vijss. M.

Or, sponging with hot vinegar, with a lotion of carbonate of ammonia, a lotion of aconite, and liniments of opodeldoc and chloroform or laudanum. When one application fails the other must be tried. The tepid bath affords almost instantaneous relief.



## THE GENERAL THERAPEUTICS OF SKIN DISEASES.

PROF. ERASMUS WILSON, F. R. C. S., F. R. S., ETC.

This eminent author says in one of his lectures, that as regards the classification of skin diseases, we may regard it from a strictly therapeutical point of view alone, and go armed for the treatment of all cutaneous diseases with four remedies :—

*First.* We must have *sulphate of magnesia*; this will form the basis of treatment of all disorders of assimilation, and include an extensive series, embracing nearly the whole of the eczemata of middle life. He does not allude to the adjuvantia and corroborantia with which sulphate of magnesia may be associated: this part of the subject is left to the judgment and experience, to the taste and refinement, of the prescriber.

*Secondly.* We may take *arsenic*, the typical remedy for defective nutritive power in every tissue of the frame—the special agent of cure of the debility of the nutritive period of life; and under this head we may include the eczema of infancy, chronic eczema at every period of existence, the impetigos and ringworms of children, and the *lepra vulgaris* of all ages.

*Thirdly.* There is a branch of nutritive diseases which is peculiarly represented by *cod-liver oil*—namely, struma and lupus. We cannot adopt struma as a group by itself, but only as a sub-group of the much more comprehensive family of diseases resulting from defect of nutritive power; whilst another sub-group of the same great family is one which includes epithelioma and cancer.

As a fourth remedy, let us take *quinine*, which we may justly regard as representing the leading feature of cure in all the neurotic or neuropathic affections.

And, finally, we have *mercury* and iodide of potassium, which represent another extensive and important group of diseases, to wit, those dependent on syphilitic poison.

## ARSENIC IN SKIN DISEASES.

DR. L. DUNCAN BULKLEY, OF NEW YORK.

According to this author, arsenic is valuable in chronic rheumatism, hence is useful in arthritic eruptions; it is serviceable in certain neuroses, as chorea and neuralgia, therefore in skin diseases with neurotic elements; and it possesses anti-malarial properties,



and is consequently serviceable in diseases of the skin showing periodic symptoms, as intermittent urticaria, etc., likewise in patients with other skin diseases who have been exposed to miasmatic influences.

Arsenic is certainly also valuable in psoriasis, eczema, pemphigus, acne and lichen, in proper cases, and when due regard is paid to the secretory organs, and to diet and other elements of general health; of less certain value in lupus, ichthyosis, sycosis, verruca and epitheliomatous and cancerous diseases; it is absolutely useless or harmful in the syphilodermata, the animal and vegetable parasitic diseases (except in rare cases), in elephantiasis græcorum and arabum, in purpura, true prurigo, herpes zoster, scleroderma, molluscum contagiosum and fibrosum, keloid, vitiligo, nævus, etc.

In reference to its administration, it is quite sure that it is eliminated very rapidly, chiefly by the bowels and kidneys, so that the urine shows evidence of it in a few hours; no trace of it can be found on careful analysis of the body after death, two weeks after the last dose of arsenic. The drug, therefore, does not accumulate in the system, and no fear of this need be entertained; but when it is administered in increasing doses, absorption may be hindered, and when the doses become very large, active absorption of the large dose may give rise to a suspicion of cumulative action.

The first symptom of a full dose of arsenic, in a very large share of cases, is a fullness about the face and eyes, and conjunctival irritation and tenderness. This need not be exceeded, but may often be kept up with advantage to a slight degree till the disease yields. Before any harm is done by the arsenic, either this or a slight nausea or diarrhœa manifests itself. It should always be given with or just after meals; it is often best to give it alone, or with a small amount of bitter infusion. The bowels should be first well purged, and an occasional laxative will both assist the action of the drug and prevent or modify some of its unpleasant effects. If the urine becomes loaded and the tongue coated, it is best to stop the medicine for a short time and give diuretics; some of these disturbances can be prevented by combining an alkali, as acetate of potassa, carbonate of soda, or aromatic spirits of ammonia, with the arsenic.

In regard to the most serviceable forms in which to use arsenic, they are named in the order of their value:—Solution of the chloride of arsenic, solution of the arseniate of potassa, that of the arseniate



of soda, and the arseniate of ammonia, arsenious acid, iodide of arsenic, and the arseniates of iron and quinia; of as yet untried efficacy, solution of the chloro-phosphide of arsenic and arseniate of antimony.

The dose of arsenic, small at first, is to be increased slowly until some of its physiological effects are manifested, or the disease yields; it may then be somewhat diminished.

It is very important that arsenic be taken very regularly and persistently, and always under the supervision and frequent inspection of the physician.

Frequently arsenious acid is better tolerated when combined with opium, as:—

1526.	R.	Acidi arseniosi,	gr.j	
		Pulveris opii,	gr.iv.	M.
Make sixteen pills.				

NELIGAN recommends highly what he calls the ioduretted solution of the iodide of potassium and arsenic, after the following formula:—

1527.	R.	Liquoris potassæ arsenitis,	℥lxxx	
		Potassii iodidi,	gr.xvj	
		Iodidi puri,	gr.iv	
		Syrupi florum aurantium,	f.℥ij.	M.
Each f.℥j of this contains ℥v of Fowler's solution.				

In skin diseases of a nervous type the following formula, after ROUTH, promises well:—

1528.	R.	Acidi arseniosi,	gr.j	
		Phosphori,	gr.½	
		Acidi hydrochloridi diluti,	f.℥j.	M.
For an adult, ℥xv-xx thrice daily.				

The only local application of arsenic which is justifiable is either one where the strength is so weak, and the extent of its use so small, that there is no danger from absorption, which may occur when not expected, or, one of such a strength as to kill the adjoining tissue at once, and so prevent absorption, as is the case with Marsden's mucilage (F. 1254).

MR. THOMAS HUNT, F. R. C. S., LONDON.

Mr. HUNT has urged the claims of arsenic in skin diseases more strongly than any other writer; and as he claims that everything



depends upon the particular mode of administering it, his directions should be closely scanned. He remarks that there are few medicines less likely to do harm than arsenic when administered in the manner about to be described. *Its curative powers seem to reside alone in doses too small to be mischievous.* It is impossible to push it. But a patient administration of small doses under favorable circumstances, for weeks, months, or years together, will be found to exercise an almost omnipotent influence over the cutaneous diseases to which it is adapted.

The numerous failures of arsenic may be traced to one or more of the following sources: 1. --The syphilitic character of the cutaneous disease; mercury is then wanted, arsenic having no influence whatever. 2. The administration of arsenic during the inflammatory or febrile stage of cutaneous disease, under which circumstances it rarely fails to increase the inflammation and never does any good. 3. Its administration on an empty stomach, thus exciting gastric irritation. 4. Too large doses and too long intervals between the doses. 5. The serious error of directing *gradually-increasing doses.* The proper method is to increase the dose one-fifth, once or twice a month, if after a fortnight it produces no sensible effect whatever. So soon as it begins to assert itself the full dose is arrived at, and it should be continued without further increase. Five minims of Fowler's solution thrice daily is sufficient to begin with, and this may be reduced as occasion may require. It should be mixed with a little water, or with the beverage drank with or after meals. Children above five years old will bear nearly as large a dose as adults.

A full dose being first administered at regular intervals, in a few days (or possibly weeks) a pricking sensation is felt in the tarsi, and the conjunctiva becomes slightly inflamed. *At this crisis the disease is brought under arrest, and generally from this period appears to be shorn of its strength.* The dose may now be reduced, and in some cases a very small dose, taken with exact regularity, will suffice to keep the eyelids slightly tender and the skin healing, until at length even the disposition to disease appears to die away under the influence of the medicine. The patient should be examined at first once a week. The medicine must not be entirely abandoned *until weeks or months after all disposition to morbid action appears to have subsided.* The arsenical course should be protracted, in reduced doses, for about as many *months* after



the final disappearance of the disease as it had existed *years* before. This will prove the best security against a relapse. In plethoric and inflammatory subjects the disease will yet be liable to relapse, unless the diet be so regulated as to keep the system always free from increased vascular action. In some cases, stimulants must be entirely abandoned; in others, a sparing allowance of animal food appears to be essential to the preservation of health; and in a few, vegetable diet for life. Cutaneous diseases are sometimes complicated with diarrhœa, dyspepsia, or general irritability of the stomach. Arsenic, in small doses, will be found to soothe the bowels (*the pulse being quiet*) in proportion as it allays the irritability of the skin. This assertion of our author, when first made, was treated with ridicule; but after twenty years' further observation he repeats it.

Arsenic, if rightly used, is adapted to the treatment of six out of every seven cases of chronic skin disease the physician is called upon to relieve. More than this, the diseases which are curable by arsenic are absolutely incurable without it, try what you will.

Our author gives the following specific directions for the use of Fowler's solution:—

*First.* It should be given in divided doses, three doses in twenty-four hours, simply to avoid an unnecessarily large dose.

*Second.* It should be diluted with pure water, or if the case require the influence of antimony, the following should be ordered:—

1529.	R.	Liquoris potassæ arsenitis,	f.3ij	
		Vini antimonii,	f.3xiv	
		Aquæ,	f.3j.	M.
A teaspoonful, diluted, three times a day.				

*Third.* This dose should be taken with, or immediately after, a meal, in order that, being mixed with the patient's food, it may find a ready entrance into the blood, and that the bare possibility of its irritating the mucous membrane of the stomach or bowels may be avoided. Not that there is any danger of mischief; but the patient, aware that he is taking arsenic, may thus be disabused of all fanciful or imaginary sufferings of this kind.

*Fourth.* It should be clearly understood that arsenic acts very slowly, and therefore it is best to begin with an average dose, say five minims of Fowler's solution, and this should be increased, not day by day, but after two, three, or four weeks. It should always be freshly prepared.



## MERCURY IN SKIN DISEASES.

DR. R. LIVEING, LONDON.

This writer attaches much importance to mercurial plaster in many skin diseases:—

- |          |                    |        |    |
|----------|--------------------|--------|----|
| 1530. R. | Hydrargyri,        | ℥iij   |    |
|          | Olei terebinthinæ, | f.℥iss |    |
|          | Emplastri plumbi,  | ℥xij.  | M. |

Of this he says it is most commonly used in the treatment of syphilides. In hard chancre it is the best local application, and can be conveniently used when spread on linen and wound round the penis. It is very useful in enlargement of the inguinal glands previous to the formation of an abscess. It is indicated in squamous and ulcerated forms of cutaneous syphilides, when its value may be shown by covering one portion of the affected skin with the plaster and leaving the other exposed, when it will be found that the former soonest recovers. It is very advantageously applied to the condylomata of children and in psoriasis palmaris. It is also useful in chronic non-syphilitic skin affections, especially sycosis, acne, indurata and lichen. Of other mercurial preparations he especially commends the following:—

## UNGUENTUM HYDRARGYRI AMMONIATI COMPOSITUM.

- |          |                                |    |       |
|----------|--------------------------------|----|-------|
| 1531. R. | Hydrargyri ammoniati,          |    |       |
|          | Zinci oxidi,                   | āā | gr.xl |
|          | Hydrargyri oxidi rubri,        |    | gr.v  |
|          | Unguenti simplicis,            |    | ℥j.   |
|          | Used in chronic skin diseases. |    | M.    |

## UNGUENTUM HYDRARGYRI CINEREI.

- |          |                           |       |    |
|----------|---------------------------|-------|----|
| 1532. R. | Hydrargyri oxidi cinerei, | gr.xx |    |
|          | Unguenti cetacei,         | ℥ss.  | M. |
- Used in syphilitic and other ulcerations of the Schneiderian membrane ; applied to the nose, night and morning, with a pencil.

## UNGUENTUM HYDRARGYRI CUM PLUMBO.

- |          |                               |      |        |
|----------|-------------------------------|------|--------|
| 1533. R. | Plumbi acetatis,              | gr.x |        |
|          | Zinci oxidi,                  |      |        |
|          | Hydrargyri subchloridi,       |      |        |
|          | Unguenti hydrargyri nitratis, | āā   | gr.xx  |
|          | Adipis recentis,              |      | ℥ss    |
|          | Olei palmæ purificati,        |      | f.℥ss. |
|          |                               |      | M.     |

An ointment largely used at the Skin Hospital, Blackfriars Road, in the treatment of eczema capitis, etc.



## UNGUENTUM HYDRARGYRI CUM SULPHURE.

1534. R.	Hydrargyri oxidi rubri,	gr. iij	
	Hydrargyri ammoniati,	gr. xl	
	Sulphuris sublimati,	gr. xx	
	Unguenti simplicis,	3j.	M.

Used in parasitic diseases, acne, etc.

## DR. L. CANE, OF LONDON.

In some obstinate cases of ringworm of the scalp, this writer (*Lancet*, Aug., 1873) commends as the best of the mercurials the *oleate of mercury*. Other writers also emphasize its value in various skin affections. Dr. CANE states that the advantages which oleate of mercury seems to possess over other remedies are—

1. It is a *certain remedy* if carefully applied.
2. It *produces no staining* or injury of the skin. In cases where the disease appears on the face, it is of great importance to avoid any disfigurement or staining.

3. It is *painless* in its application. This is not the case with the ordinary strong parasitocides, most of which produce vesication, etc.

4. It *readily penetrates* into the sebaceous glands, hair follicles, and even into the hairs themselves, the mercury being in a state of solution in an oily medium, and it is therefore much more likely to destroy the fungus than the spirituous or aqueous solutions of mercury, etc. This penetrating power of the oleate may be increased by adding a small quantity of ether (one part to eight) to it.

In very sensitive skins the irritation sometimes produced by it may be avoided by using a weaker solution (five per cent.), and by applying it with a camel's-hair brush.

As the oleate of mercury is not officinal, the following formula, that used at the University College Hospital, London, is added:—

1535. R.	Hydrargyri peroxidi præcipitati,	3j
	Acidi oleici,	f. 3x

Agitate the acid in a mortar, add the peroxide gradually, triturating frequently during twenty-four hours, until it is dissolved, and a viscid solution is formed.

## ON PARASITOCIDES.

## DR. H. S. PURDON, LONDON.

Parasitocides may be divided into those derived from the vegetable, animal, and mineral kingdoms; but without going deeply into the subject, it may be briefly stated that the most valuable obtained



from the first are *iodine*, *creasote*, *carbolic acid*, and *acetic acid*. The last three check the development of spores; creasote, according to Mr. BEAUCHAMP, although it allows the mycelium to form, prevents the spores from germinating. From the second, the only remedy in use is *cantharides*, which, when used in the form of the liniment of the *British Pharmacopæia* (about the strength of the cantharidal collodion, U. S. P.), quickly cuts short the disease, especially *tinea tonsurans*, *circinnata*, and *alopecia acuta*; it likewise stimulates the affected skin to take on a more healthy action. From the mineral kingdom we have *mercury*, especially the bichloride, chromate, nitrate, and white precipitate; *sulphur*, *borax*, etc. The first has a well-earned reputation, and the chromate of mercury our author has carefully tried in *tinea versicolor*, and some other forms of vegetable parasitic diseases. An objection to its use is that it does not mix with water; indeed, it is insoluble in any fluid, but may be used as an ointment. He has added glycerine and rectified spirits, so as to endeavor to suspend it in solution, but without success. The only way to manage, is to shake the bottle before applying it. A useful auxiliary to the above remedies is epilation, which should be performed in inveterate cases. Of course, constitutional treatment is of the utmost importance, *quinine* being our chief remedy, which substance, it is asserted, has the property of destroying vegetable growth. The tincture is the best preparation for children.

No doubt the growth and development of a fungus is favored by some peculiar condition of the system; for example, *tinea versicolor* flourishes and is common on the bodies of consumptive patients.

In all cases of vegetable parasitic diseases, our author prescribes constitutional as well as local treatment. *Cod-liver oil*, *pancreatinine*, the *syrup of the iodide of iron*, *quinine*, and in hospital practice *salicine*, are the remedies relied on. The therapeutical fact should be remembered that parasitical affections are rarely, if ever, "cured" by destroying the parasite; but they can be eradicated by administering appropriate tonics and alteratives which are capable of correcting the blood dyscrasia, which tends to keep up the disease.



The following formulæ for parasiticides are commended :—

## DR. MALASSEZ.

1536. R. Hydrargyri sulphatis flavæ, gr.xv  
 Butyri cocœ,  
 Olei ricini,  
 Olei amygdalæ dulcis, āā 3v. M.  
 A mild parasitic ointment. Apply twice daily in pityriasis, tinea, sycosis, etc.

## DR. R. LIVEING.

## LOTIO ACIDI SULPHUROSI.

1537. R. Acidi sulphurosi,  
 Aquæ destillatæ, āā f.3iv. M.  
 Used in all parasitic skin diseases.

## LOTIO CALCII SULPHURETI.

1538. R. Calcis vivæ, lb. ¼  
 Sulphuris, lb.ss  
 Coque cum aqua, Ov  
 Evaporetur, ad. Oijj. M.  
 Used in scabies and other parasitic diseases.

## LOTIO HYDRARGYRI PERCHLORIDI.

1539. R. Hydrargyri perchloridi, gr.x  
 Bismuthi subnitratiss, gr.cxx  
 Spiritûs camphoræ, f.3ss  
 Aquæ, Oj. M.  
 Used in parasitic diseases and acne.

## UNGUENTUM CREASOTI.

1540. R. Creasoti, m.vj  
 Unguenti hydrargyri, gr.cxxx  
 Hydrargyri oxidi rubri levigati, gr.xx  
 Adipis recentis, 3j. M.  
 Used in parasitic and other skin diseases.

## J. M. DA COSTA, M. D., PHILADELPHIA.

1541. R. Calcis hyposulphitis,  
 Sodæ hyposulphitis, āā 3ss  
 Aquæ, f.3iv. M.  
 A useful lotion for *sycosis mentis*.

The following are useful :—

## VESICATING, VEGETABLE PARASITICIDES.

1542. R. Tincturæ iodinii compositæ, f.3j  
 Iodinii, gr.x.  
 Potassii iodidi, gr.xv. M.  
 Used in chronic stages of vegetable parasitic diseases.



1543. R. Pulveris cantharidis,  $\bar{3}ij$   
 Acidi pyro-acetici concentrati, f.  $\bar{3}vii$   
 Acidi tannici,  $\bar{3}j$ . M.

Macerate for a week and strain. Used in *tinea decalvans*.

1544. R. Acidi carbolici fluidi, f.  $\bar{3}j$   
 Glycerinæ, f.  $\bar{3}ss$ . M.

Used in *tinea*.

#### SKIN HOSPITAL, LONDON.

1545. R. Pulveris cantharidis,  $\bar{3}j$   
 Acidi tannici,  $\bar{3}ss$   
 Acidi acetici, f.  $\bar{3}iv$ . M.

Macerate seven days and strain.

#### DR. TILBURY FOX, OF LONDON.

This writer, speaking of skin diseases of general character, remarks, as regards *local* remedies, there are three main rules to be observed, viz.:—

1. Whenever active hyperæmia is present, be the disease what it may, applications of a stimulating nature should not be used, but the treatment should be essentially *soothing*, otherwise the inflammatory symptoms will be increased, and the disease spread.

2. The action upon the skin of an external irritant—as scratching—should be prevented, and the air excluded from inflamed or excoriated surfaces, especially by oil-packing and otherwise.

3. Not until the stage of active hyperæmia has passed should astringents, stimulating applications, or revulsives be employed. These, and absorbents, are to be reserved for the stages of vascular sluggishness and inflammatory induration and thickening.

As regards internal or general remedies, it is proposed to indicate below, in as practical and concise a form as possible, the conditions which should be taken into consideration in framing the treatment of such diseases as erythema, intertrigo, urticaria, eczema, lichen, prurigo, pemphigus, hydroa, ecthyma, furunculus, pityriasis rubra and psoriasis; and inflammatory conditions of the glands and hair follicles, as acne, dysidrosis, and sycosis, which are analogous to, and only differ in regard to their anatomical seat from, those preceding. This short sketch or chart, inasmuch as it applies to the bulk of skin diseases, should be used regularly in determining the treatment, which must necessarily vary with the different combinations of the influencing agencies referred to. These conditions are:—

*A Syphilitic Taint*, which tends to induce induration from the



presence of syphilitic tissue; or ulceration, cachexia, and general debility in eczema, psoriasis, pemphigus, ecthyma, acne and intertrigo (infants).

*Constipation*, which causes dyspepsia, liver torpor and retention of excreta, and occurs in all forms of skin diseases.

*Debility*, including anæmia, which retards recovery from want of recuperative power in the system, all functions sharing in the debility. It is especially operative in furunculus, eczema, pityriasis, rubra, pemphigus, and ecthyma.

*Diabetes*, which increases any inflammatory condition, favors phlegmonous inflammation, and leads to freer development of disease, and to chronicity. Its influence is often seen in eczema, psoriasis, intertrigo in adults, furunculus, and anthrax.

*Dyspepsia*, which induces debility, leads to liver disturbance, impurifies the blood, and increases hyperæmia by reflex action, as in acne, eczema, urticaria and sycosis.

*Errors of Diet*, which introduce special irritative substances into the blood, cause dyspepsia, lead to accumulation of nitrogenous matters in the system, to liver disorder, etc., and complicate all forms of inflammatory eruptions without exception.

*Gouty and Rheumatic Diseases*, which cause accumulation of uric and lactic acids and allied compounds in the blood, and give an inflammatory character to disease, as seen in eczema, psoriasis, lichen, ecthyma, sycosis and urticaria.

*Lack of Hygiene*, which disposes to torpor of the skin, and favors the occurrence of morbid action and disease, as seen in acne and sycosis, eczema, intertrigo, and erythema especially.

*Repression* of the special normal eliminatory functions (skin and menstrual), which throws the necessity of compensatory elimination on the skin, which may fail to respond, and so become diseased. In dependent parts this leads to increase of fluid tissues. It occurs in furunculus, ecthyma, and eczema.

*Retention of Excreta*, from kidney, liver and bowel inactivity, which gives the blood an irritative quality and aggravates hyperæmia in all inflammatory skin diseases. It also leads, in the case of kidney torpor, to increase of watery fluid in the tissues, as in eczema of the legs.

*Strumous Diathesis*, which imparts an unusual purulent character to eruptions, and favors the application of the connective tissues, as in eczema, psoriasis, acne and sycosis.



## DIET IN SKIN DISEASES.

There are one or two observations to be made on this subject that may be of use in the management of these diseases.

*First.* A distinction must be made between the diet of the private and hospital patient. The latter often only requires to be well fed up, and his disease then speedily goes; the former, on the other hand, often needs to have a check put on the quantity and quality of his food.

*Second.* In children, skin diseases may arise directly from defective alimentation, as in the case of eczema; and it is frequently the case that the child, the subject of eczema, intertrigo, or psoriasis, has not a sufficient supply of *milk*, either from excessive dilution or otherwise.

*Third.* The regulation of the diet, setting aside the question of quantity or quality, is, as a rule, needed not so much to directly influence the skin disease as certain states of the general health, which modify the particular disease present; for instance, to meet especially dyspeptic, gouty, and rheumatic conditions, but particularly the former.

In dyspepsia in connection with eczema, acne, psoriasis, or congestion of the face, it is advisable, especially if the urine be very acid, to avoid sugar, tea, coffee, alcoholics, beer, raw vegetable matter, with unripe or uncooked fruit, veal, pork, seasoned dishes, pastry, and the coarser kinds of vegetables, but especially all articles whose use is followed by heat or flushing of the face, and by flatulence and the like. Milk, the common meats, a light kind of bread, and some very light wine should be the diet of dyspeptic patients, whose skins are at all in a state of irritation. In very many cases the stomach is at fault at the outset, and a careful regulation of the diet is of the utmost importance as an aid to the other means adopted to correct faults in other parts of the system.

In gouty subjects, much the same line is to be pursued. As regards stimulants, hock, a good light claret, Moselle even, but not the sparkling, or whisky in Vals water, are the best beverages.

In strumous subjects, the diet should consist of as much fatty matter as possible.

*Fourth.* In children who suffer from ringworm, it is desirable to give as much fatty matter as possible, by means of milk, cream, eggs, and fat meat, if they can be got to eat it.



*Fifth.* In syphilis, the greatest care should be taken to avoid anything beyond the most moderate use of stimulants; their abuse in this disease is a source of the greatest aggravation.

*Sixth.* In all cases in which the onset or early stage of a skin disease is accompanied by febrile disturbance, however slight, or in which the disease is very hyperæmic, stimulants should be avoided, and the plainest and simplest diet ordered. In marked cases of this kind, a milk diet for a while is often found to be very beneficial.

*Seventh.* In some cases in which the skin is hyperæmic, this condition is much increased by the ingestion of food, especially if dyspepsia exists, in consequence of the sympathy existing between the stomach and the skin of the part affected. This state of things is especially marked in such diseases as acne, congestion of the face, and non-parasitic sycosis. Stimulants must be avoided, except they be diluted with some alkaline water: the use of a diet appropriate to the dyspepsia must be rigorously enforced.

*Eighth.* It is said that psoriasis requires an ample meat diet; but the patient must be dieted, and not his disease—*i. e.*, the diet should be plain and nutritious, and adapted to the constitutional peculiarities of the individual, according to circumstances.

*Ninth.* In all cases where a skin disease has become chronic, and where there is debility, the patient should be allowed a full, unstimulating diet.

Our author has at times employed *rubber cloth* in the treatment of every variety of eczematous affections, from *eczema squamosum* to *eczema impetiginosum*. He makes use either of closely applied pieces, roller bandages, or of whole garments made of this material. The rubber cloth (*toile caoutchouque*) consists of ordinary cotton, which is first coated with a solution of caoutchouc, and then submitted to the process known as vulcanizing. This consists in sprinkling the stuff with a mixture of caoutchouc and sulphur, and exposing it to a high temperature under a pressure of sixteen atmospheres. The material obtained in this way is gray, black, or of any other desirable color, flexible, impermeable to watery fluids, smooth and polished on one surface, dull and rough on the other, and smells of caoutchouc and sulphur. Oil, as well as fats and alcohol, dissolve this layer of caoutchouc, thus destroying its desirable qualities, and rendering it useless for the purpose in question. It can be worked like any other cloth, that is, be cut, sewed, and



its surfaces be made to adhere by means of a cement containing caoutchouc. These properties led our author not only to apply it simply to the affected parts, but to have various pieces of clothing made of it; for instance, caps for the head, bags in which to envelop various regions of the body, gloves, stockings, and, finally, entire drawers, with and without feet attached, as well as shirts and blouses. Besides these, he has some of the ordinary gum-elastic (not vulcanized) made into bandages and gloves, and is convinced that this is also useful.

In every case the smooth side of the vulcanized cloth is laid in contact with the skin, from which the collections of morbid products, the scales, crusts, etc., have been previously removed, although in some cases the cloth is applied, for the sake of experiment, above these. On removing the cloths, at the end of twelve or fourteen hours, they are found very moist, often entirely soaked through, and the fluid, which had collected on the surface of the skin in considerable quantity, of a penetrating smell, worse even than that of the "stinking foot-sweat." The skin itself, however, when cleansed from the diseased products thus softened, appears odorless and only reddened, more or less robbed of its epidermis, moist and shiny. The sensations of the patient during their application are not at all unpleasant, there being no pain or itching. After their removal itching generally comes on, and, unless they are renewed within half an hour or so, a feeling of contraction and pain also, so that the patients long for their immediate reapplication. If the treatment is continued in this way, the whole series of symptoms gradually diminish—the moistening, redness, itching and pain—and in many cases the cure of the eczema is seen to be complete in the course of two months.

But as it is known that under other treatment the cure of eczema may be effected in this period of time, the question arises what advantage the caoutchouc method offers over others, such as by unguentum diachyli, tar, zinc, sublimate, etc.

The answer must be that, although in general no excessive advantage can be attributed to the caoutchouc, nevertheless there are cases in which this new remedy can be used with especial profit. It applies particularly to eczema of the hands, fingers, flexures of the joints, scrotum and feet, in which the application of salves, etc., is not only attended by much inconvenience to the patient, but in which also the caoutchouc preparations are able to afford a much



more speedy relief to the pain produced by the fissures, inasmuch as such parts can be kept constantly moist by the easy application of the gloves, coats, bandages, suspensories and stockings employed. Although, therefore, no new panacea has been introduced into dermato-therapeutics by the use of caoutchouc in the treatment of eczemata, it must still be regarded as a very *valuable addition to our means of cure*, and all the more as it does not prevent the helping use at the same time of other known remedies. Thus in many cases the cure of eczema is powerfully assisted by the simultaneous use of schmierseife, baths, douches, tar preparations, etc., and these latter in turn made more serviceable by the application of the caoutchouc clothes.

In the general treatment of skin diseases, it must always be borne in mind that there is very frequently debility present, which favors the development of the disease, and which must be got rid of, if the eruption is to be cured, in the best way. In fact, the skin of a healthy person will mostly resist the action of many local irritants, but cannot do so if the subject be weak and debilitated; so that it is an important point to give tonics, as a rule, in cases of eruptions excited by local irritants. There is, for example, one simple combination of causes, debility and local irritants, inducing erythema, eczema, lichen, etc. Other examples readily occur, such as eczema in a gouty subject, modified by neglect and scratching; psoriasis in a strumous subject in whom the tendency to the disease is hereditary; erythema in a rheumatic subject, in connection with dyspepsia; eczema occurring in cooks exposed to the irritating influence of the fire, whilst the patient also has a blood current charged with retained excreta, in consequence of inefficient bowel and kidney action; lupus in a scrofulous subject; tinea tonsurans in a body with persistent anæmia and a phthisical tendency; pruritus in connection with senile atrophy of the skin, liver derangement, and gout. Other examples might be multiplied almost indefinitely.

In setting about, therefore, the cure of any given cutaneous disease, attention must be paid not only to predisposing and exciting causes, but to coincident occurrences and accidental concomitants modifying the disorder.



## V. VENEREAL DISEASES.

*Balanitis—Gonorrhœa, Acute and Chronic (Complications and Sequelæ)—Syphilis, Primary and Constitutional.*

### BALANITIS.

AUGUSTE CULLERIER, OF PARIS.

When it is possible to uncover the glans, make three or four dressings a day with a piece of fine linen or lint (inserted between the glans and prepuce), wet with one of the following

#### ASTRINGENT SOLUTIONS.

1546.	R.	Argenti nitratis, Aquæ destillatæ,	gr. iij-ivss f. 3iv.	M.
1547.	R.	Aluminis, Aquæ rosæ,	℥ij-iv f. 3iv.	M.
1548.	R.	Acidi tannici, Vini aromatici, Aquæ rosæ,	gr. xv-xxx f. 3xj q. s. ad. f. 3iv.	M.
1549.	R.	Tincturæ iodinii, Aquæ destillatæ,	℥xv-xxx f. 3ix.	M.

SILAS DURKEE, M. D., BOSTON.

The best topical application in this disease for slight abrasions and small patches of aphthæ is the following:—

1550	R.	Liquoris sodæ chlorinatæ, Aquæ,	f. 3ss f. 3vij.	M.
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This solution is to be applied on pieces of lint between the prepuce and the glans, three or four times a day.

If the erosion be considerable, and the puriform exudation copious, an astringent lotion may be appropriate, thus:—

1551.	R.	Zinci sulphatis, Acidi tannici, Glycerinæ, Aquæ,	gr. ij gr. iv f. 3ij f. 3iv.	M.
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Apply with lint.

Simple *lime-water* will frequently effect a cure.



Balano-posthitis requires most frequently only local treatment. When, however, the inflammation tends to become phlegmonous, and threatens to terminate in gangrene, it is well to subject the patient to a severe regimen, and to the use of antiphlogistics, diet, repose, general baths, demulcent drinks, saline purgatives, etc. In order to combat gangrene, order—

1552. R.	Camphoræ,	℥ <sup>ss</sup>	
	Extracti opii,	gr. iij	
	Moschii,	gr. viijss.	M.

For forty pills. From six to ten a day.

The penis should be wrapped up in compresses, moistened with the following strongly opiated solution:—

1553. R.	Extracti opii,	℥ij	
	Vini aromatici,	f. ℥ iij	
	Aquæ rosæ,	f. ℥ vj.	M.

After the inflammation has subsided, lotions and intra-preputial injections, with the solution given above, should be resorted to.

## GONORRHOEA.

DR. THOMAS F. BETTON, OF PHILADELPHIA.

This physician (*Medical Times*, October, 1871) has found, by many years' experience, that weak injections of acetate of lead, gr. j–ij to rose water f. ℥ j, assisted by a cold sitz-bath morning and evening, is sufficient in all cases of simple clap, when taken early. He considers the abortive treatment by strong injections as both useless and pernicious.

AUGUSTE CULLERIER, PARIS.

1554. R.	Copaibæ,	f. ℥ v	
	Cubebæ,	℥ i v	
	Spiritûs menthæ piperitæ,	q. s.	M.

Electuary. From four to five drachms a day are given.

This formula is one of the most frequently employed at the Hôpital du Midi.

For the *abortive* treatment of gonorrhœa, our author uses large doses of copaiba (f. ℥ i v–v a day) or cubebs (℥ v–v iij a day). He



considers them more valuable than any of the abortive injections. They are to be employed only, however, when the gonorrhœa is of recent date, when there is little or no pain, and where the discharge is not as yet muco-purulent.

Under favorable circumstances, when the abortive treatment is thus employed, the discharge will diminish, or disappear in the course of four or five days. The treatment should not then be suspended, but, on the contrary, continue for several days after the cure is apparently complete. If this precaution be neglected, the inflammation may reappear. If, after from six to eight days, no improvement is manifest, it is useless to persist longer in this form of treatment. Astringent injections should not be combined with this use of the balsam. They have no advantage at this early period of the disease, and often keep up an amount of irritation, which may interfere with the effect of the internal remedy.

When the inflammatory period of gonorrhœa is over, CULLERIER advises injections to complete the cure.

The following injections are those most frequently prescribed at the Hôpital du Midi :—

1555. R.	Zinci sulphatis, Plumbi subacetatis, Aquæ,	āā	gr. xv f. ℥iv.	M.
1556. R.	Aluminis, Aquæ,		℥i ss f. ℥iv.	M.
1557. R.	Acidi tannici, Aquæ,		gr. viij f. ℥j.	M.

Two injections a day are sufficient. Before each injection the patient should urinate.

SILAS DURKEE, M. D., BOSTON.

1558. R.	Copaibæ, Spiritus ætheris nitrosi, Tincturæ kino, Morphiæ sulphatis, Aquæ camphoræ,	f. ℥iij āā	f. ℥ss gr. iv f. ℥ij.	M.
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One teaspoonful thrice daily.

Usually, an efficient check will be put to the gonorrhœa in eight or ten days by the use of this preparation.

1559. R.	Pulveris cubebæ, Pulveris aluminis, Pulveris cinnamomi,	℥viiij ℥j ℥j.	M.
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For thirty-two powders. One thrice daily.



This combination of cubebs and alum will usually diminish the urethral discharge in two or three days, and if the patient will observe a perfectly quiet state of the body, he will find that in eight or ten days the gonorrhœa will be nearly at an end. The strictest avoidance of exercise constitutes an important element in the treatment of every case of gonorrhœa, and the patient should even keep in a recumbent posture in order to secure the best effects in the shortest time.

As with the balsam copaiba, so with cubebs; they should not be discontinued under a fortnight after the cessation of the urethral discharge.

The tincture is an elegant and convenient form of administering cubebs. It may be given in doses of f.ʒj to f.ʒij four or five times a day, or combined thus:—

1560. R.	Tincturæ cubebæ,	f.ʒij	
	Tincturæ cantharidis,	f.ʒiss	
	Morphiæ sulphatis,	gr.ij	
	Aquæ camphoræ,	f.ʒij.	M.

A dessertspoonful thrice daily, in half a gill of cold water.

Or, the fluid extract may be used in this manner:—

1561. R.	Extracti cubebæ fluidi,	f.ʒiv	
	Morphiæ sulphatis,	gr.ij	
	Mucilaginis acaciæ,		
	Aquæ camphoræ,	aa	f.ʒij. M.

Our author also recommends the following formulæ of Drs. DRUITT, LANGSTON PARKER, BEYRAN and HOLMES COOTE:—

1562. R.	Copaibæ,	f.ʒss	
	Olei cubebæ,	f.ʒss	
	Liquoris potassæ,	f.ʒij	
	Spiritus myristicæ,	f.ʒss	
	Aquæ camphoræ,	f.ʒj.	M.

Two teaspoonfuls thrice daily.

The combination of copaiba with the oil of cubebs, as above, will sometimes be found to agree better with the stomach than the capsules of any other combination.

In chronic gonorrhœa or gleet, the balsam and the cubebs may be advantageously combined with iron, as follows:—

1563. R.	Pulveris cubebæ,	ʒss	
	Copaibæ,	ʒij	
	Ferri sulphatis,	ʒj	
	Terebinthinæ olei,	ʒij.	M.

To be made into boluses of gr.x each. From fifteen to thirty a day.  
Usefully employed in lax constitutions.



1564. R. Pulveris cubebæ,  
 Ferri carbonatis,  
 For one powder, to be taken thrice daily.
- 3j-ij  
 3ss-j. M.

The above is particularly useful after the acute symptoms have subsided.

Our author employs the following in gleet:—

1565. R. Tincturæ cantharidis,  
 Olei terebinthinæ,  
 Mucilaginis acaciæ,
- aa f.3j  
 f.3ij. M.
- A teaspoonful thrice daily, together with the following injection:—

DR. N. GALLOIS, OF PARIS.

1566. R. Acidi tannici,  
 Opii pulveris,  
 Glycerinæ,
- 3j  
 gr. iv  
 q. s. M.

Make into *urethral suppositories*, which, soft in summer, are quite solid during the winter.

They are to be moistened with warm water and introduced into the urethra, where a piece of the length of about an inch and a half is to be allowed to remain. This quickly dissolves and turns into a whitened mass in mixing with the urethral mucus. Treated in this manner, it is said that the most violent cases cure in from one to three weeks.

1567. R. Copaibæ,  
 Spiritûs menthæ piperitæ,  
 Mel despumatæ,  
 Sacchari,  
 Aquæ destillatæ,
- f.3iv  
 ℥xx  
 f.3iss  
 3iss  
 f.3ij.

Place the copaiba, the honey, the sugar and the water in a vessel and warm over a slow fire, constantly stirring, to avoid a too great elevation of the temperature and to favor the division of the oleo-resin of copaiba. At the end of ten minutes remove the fire, color the mixture, and add the peppermint after cooling. The product thus obtained, nearly deprived of the odor of copaiba, is of a gelatinous consistence, and can be administered to those who cannot take the ordinary preparations.

DR. WILLIAM A. HAMMOND, NEW YORK.

In simple gonorrhœa, after the discharge is well established, reliance should be placed upon injections. Those recommended in syphilitic gonorrhœa will be found most advantageous.

The following mixture of copaiba is capable of doing more good than the uncombined balsam, and it is not much more disagreeable to the taste or stomach:—



1568. R. Copaibæ, f.ʒij  
 Spiritus ætheris nitrosi, f.ʒj  
 Tincturæ opii, āā f.ʒj  
 Tincturæ iodinii, āā ʒij  
 Magnesiæ, f.ʒv.  
 Mucilaginis acaciæ, M.
- One to two teaspoonfuls thrice daily.

No internal treatment should be depended upon to the exclusion of injections.

Stimulants should be avoided, as should also *salt meat*.

In the management of the chronic stage of simple gonorrhœa or *gleet*, the affected individual should be placed upon a good, plain, nutritious diet, and the mind and body pleasantly and systematically employed. The greatest benefit is derived from cold plunge baths, followed by frictions of the skin with coarse towels or hair-brushes. As internal remedies use—

1569. R. Ferri sulphatis, gr.ij  
 Quiniæ sulphatis, gr.ss. M.
- For one pill thrice daily.

The oxalate or citrate of iron may be substituted in the same dose. In addition, our author has derived great benefit from the use of the following recipe :—

1570. R. Tincturæ cantharidis, f.ʒss  
 Strychniæ, gr.ʒ  
 Syrupi limonis, f.ʒij. M.
- A teaspoonful morning and evening.

Injections should be persevered with, changing one for another, as they lose their effect.

MR. BERKELEY HILL, F. R. C. S., LONDON.

In the early stage, copaiba and cubebs are not beneficial, and only two injections are of any service, viz., half-hourly injections of tepid water, or hourly injections of alum or sulphate of zinc, gr. ¼ to aquæ f.ʒj. The former are often useless, and the latter, if they increase the irritation, are to be stopped.

#### SUPPOSITORY FOR CHORDEE.

1571. R. Morphici sulphatis, gr. ½-ss  
 Butyri cocoæ, gr.x. M.
- To be passed into the rectum on going to bed.







of tension is felt, the syringe may be withdrawn; but the front fingers must previously be so applied as to compress the glans, and thus prevent any escape of the fluid. Next, with the thumb and forefinger of the right hand, the fluid in the urethra is to be set in motion, and so kept for four or five minutes. This will be attended with a gurgling noise, from the mixture of air and fluid. Thus, when the injection has insinuated itself within the folds and lacuna of the urethra, it is allowed to escape. In this manner, it is asserted, the bladder is protected on the one hand, and on the other there is a certainty of the fluid being applied to the whole of the affected surface.

*Glycerinum acidi tannici*, used in the above recipe, is officinal in the *British Pharmacopœia*. It is made by rubbing together in a mortar one ounce of tannic acid and four ounces of glycerine, then transferring the mixture to a porcelain dish, and applying a gentle heat until complete solution is effected.

M. LUC, a French military surgeon, uses in gonorrhœa, when the discharge is without pain, an injection of a thin paste of finely powdered starch and hot water.

DR. FRANK F. MAURY, OF PHILADELPHIA.

The abortive treatment is objectionable on account of its tendency to leave strictures.

The patient should avoid all sexual excitement; all alcoholic beverages (the least harmful is claret); highly seasoned meats; asparagus; violent exertion. Locally, a routine practice must be avoided. One thing, however, should never be neglected; that is, to teach the patient—

*How to make a urethral injection.* Let him first empty his bladder, then stand over a chamber, retract his foreskin, and hold his penis, with his thumb on one side and his finger on the other, so as to close the meatus against the nozzle of the syringe, never holding above and below, for that spreads the meatus. Then let him inject about a fluid drachm, slowly and deliberately. There is no danger of forcing the injection into the bladder, and no pains need be taken to prevent it. After the injection is in, let it be gently worked backward and forward along the urethra, to distribute it nicely, and retained for a few minutes. Then let it come away, as much as will flow off readily.

The nozzle of the syringe should not be longer than about three-



eighths of an inch, because often the trouble is close to the orifice of the urethra, and a longer nozzle would prevent the injections coming well in contact with it.

This application is best made in the morning, after the daily stool, again about noon, and again about five or six o'clock; not just before bedtime, as is sometimes recommended. The manipulation tends to increase the disposition to chordee, and should not be made just before going to bed.

As for particular formulæ, one can use a mixture containing vegetable and mineral astringents, say—

1575. R.	Tincturæ matico,			
	Tincturæ catechu,	āā	f. 3j	
	Extracti opii aquosi,		gr. xvj	
	Plumbi acetatis,		gr. x-xij	
	Glycerinæ,		f. 3iv	
	Aquæ rosæ,		f. 3vss.	M.

One may substitute for the acetate of lead sixteen grains of sulphate of zinc, or of the biborate of zinc.

There is another form of injection, which acts by making a coating for the inflamed membrane. It consists of bismuth held in suspension, which, when injected, gives a mechanical protection:—

1576. R.	Bismuthi subnitratis,		3ij	
	Glycerinæ,		f. 3iv	
	Aquæ rosæ,		f. 3vss.	M.

Shake well when used.

Add the following internally:—

1577. R.	Tincturæ sanguinariæ,			
	Tincturæ kino,			
	Balsami copaibæ,			
	Spiritus ætheris nitrosi,	āā	f. 3j	
	Olei gaultheriæ,		f. 3j.	M.

A teaspoonful every four hours. With these use large diluent drinks.

#### COMPLICATIONS AND SEQUELÆ OF GONORRHŒA.

##### GONORRHEAL ORCHITIS.

##### GERMAN HOSPITAL, PHILADELPHIA.

At this institution, if epididymitis resulted, the patient was put at rest on his back, the testicles supported on a cushion, and cooling lotions applied, if there were acute inflammatory symptoms. Should the epididymus become chronically indurated and indis-



posed to soften, then mercury was applied locally, either in the form of the simple ointment, or of that combined with belladonna ointment, in the proportion of eight of the former and to two of the latter. In place of the mercurial preparation, an ointment containing iodine was sometimes used. The following formula was one of the most common :—

1578. R.	Unguenti iodinii,	3ij	
	Extracti belladonnæ,	gr.xx	
	Adipis,	3ij.	M.
Ointment.	Apply externally twice daily.		

## CEDEMA PRÆPUTII.

1579. R.	Plumbi acetatis,	ʒiv	
	Aquæ,	Oj.	M.
Or,			
1580. R.	Aluminis,	ʒviss	
	Aquæ,	Oj.	M.

The cedematous organ is to be enveloped and lightly compressed by a linen bandage saturated with one of the above solutions.

## PROSTATIC GLEET.

MR. BERKELEY HILL, F. R. C. S., OF LONDON.

An obstinate prostatic gleet is a not infrequent result of a neglected or ill-treated gonorrhœa. In its treatment Mr. HILL recommends that if there is much pain and nocturnal irritation, a very mild anodyne suppository passed into the rectum at bedtime should be ordered, such as one-third of a grain of extract of belladonna, a quarter of a grain of hydrochlorate of morphia, one grain of camphor, and ten grains of cocoa butter, melted together and cast into a conical shape. If the repeated use of the morphia interferes with the action of the liver, an occasional dose of calomel, with a little colocynth, should be given. While the discharge is whitish or opaque, two or three drops of copaiba in frequent doses is often useful; and when the prostate has lost tenderness if pressed by the finger, one or two drops of tincture of cantharides, in plain water, four times in twenty-four hours, is also sometimes magical in its effect. A good formula for the copaiba is—



1581. R. Copaibæ,		mij	
Cinnamomi essentiae,			
Mucilaginis acaciæ,	āā	m <sub>xx</sub>	
Aquæ,		f. 5j.	M.

This amount four times daily.

When all the pain and spasmodic twitching of the compressor muscles have passed away, cubebs, in moderate doses—say, ten grains, four times daily—is sometimes useful to check the secretion completely.

For *local treatment*, he states that when considerable pain is felt if the finger is introduced into the rectum, and the prostate feels large and soft, leeches are useful—that is, three or four applied by means of a leech tube to the mucous membrane within the anus; or if the introduction of a foreign body causes pain, which is often the case, and the requisite skill be not at hand, twenty leeches applied to the perineum are very beneficial. When the protastic tenderness has subsided, cool hip-baths for five minutes, morning and evening, beginning at 85° F., and gradually lowering the temperature to 50° F. by adding cold water, are useful. They may be continued several weeks with benefit. In continuous moderate counter-irritation, lauded by some surgeons in chronic prostatitis, he has no faith. He has used it over and over again, but could never satisfy himself that the repeated application of small blisters to the perineum lessened the prostatitis. If it benefited the patient at all, it did so only by engaging his attention and satisfying him that “something was being done.” Counter-irritation by means of caustic solution of iodine is useful when applied in the following way:—Paint the perineum, the genito-crural folds, and neighboring parts of the thighs, so that the area is as large as half a square foot, and thus raise a considerable amount of irritation too great to allow the patient to walk about for some days. Such irritation sometimes removes all the symptoms in a few hours, except the gleet, and that is then in a fair way to depart. But this favorable result is by no means constantly obtained; hence he avoids counter-irritation till he has tried other means.

In the “irritable” or “relaxed” prostate which sometimes comes from this cause, sometimes from masturbation, unsatisfied desire, spermatorrhœa, etc., the treatment is first to allay the patient’s fears, which are generally extravagant, inquire into his diet, and



warn him to eat his meals slowly. If, as is often the case, an examination of his urine shows that the phosphates are freely deposited, the following formula will be appropriate :—

1582. R.	Acidi nitrici diluti,			
	Tincturæ nucis vomicæ,	āā	gtt x	
	Aquæ,		f 3j.	M.

This amount thrice daily.

In regard to local treatment, examine the prostate with the finger, and if not specially tender, pass a flexible bullet-bougie along the urethra, and don't be alarmed by the amount of outcry it causes, or even should a drop of blood be found adhering to the end of the instrument when it is withdrawn. Of course the greatest gentleness must be used in passing the instrument. The pain, which is of a burning kind, disappears very quickly, and the patient, even if he have fainted from the nervous shock, in a few moments gets up and acknowledges that he feels no particular inconvenience from the operation. In the next three or four days he experiences great improvement; the amount of discharge is less; there is less aching in the sacrum and thighs after walking; and consequently his spirits are better and his several nervous disorders trouble him far less, so that on his next visit he will usually allow the bougie to be passed again, and may even beg for it spontaneously. After the first introduction, the spasm is commonly much less, and when it has been passed a few times the amount of suffering is very bearable. In order to reduce the pain to a minimum, Mr. HILL uses at first flexible black French bougies with tapering ends, till the irritation has considerably lessened, when a steel No. 10 sound, with short curve, is generally the most effective instrument. So long as any tenderness or spasm remains, the sound should be passed once a week if the good effect last so long, twice a week if the dull pain and sense of weight begin to revive after three or four days have elapsed. It now and then happens that the passing of a sound becomes real agony. In such cases he is accustomed to pass the catheter, and throw in from ten to fifteen drops of solution of nitrate of silver (twenty grains to the ounce); first rendering the patient insensible by chloroform, or, better still, by gas and ether, and emptying the bladder, if the patient has not already done so in the natural way, before the injection is thrown in. While he is still unconscious, it is well to inject one-third of a



grain of morphia under the skin, to maintain insensibility for the three or four hours that elapse before the pain of the injection subsides.

This injection is also useful in chronic prostatitis, and must be carried out in the same way. For this it may need repetition more than once, or even twice; but repetition is rarely if ever needed for simple irritable prostate, as after one injection the slight tenderness remaining is easily controlled by the regular introduction of a bougie about once a fortnight, which the patient may learn to do for himself. When the digestion has been restored or greatly improved, and the local irritability has subsided, the recovery may be made complete by sending the patient a long sea voyage. By such means his body is invigorated, his mind fully occupied, and he is removed from temptation to sexual excitement. In a year or so, by the time he is fitted for sexual intercourse in marriage, he should seek that as the best safeguard against relapse into his old condition.

## GONORRHOICAL RHEUMATISM.

PROF. RICORD, PARIS.

1583. R. Tincturæ scillæ,  
Spiritus camphoræ,  
Vini opii,                      āā      f. 3v.      M.

A resolvent liniment, to be applied, in fomentations, to joints affected with gonorrhœal arthritis when the pains have nearly disappeared.

DR. J. F. M. GEDDINGS, CHARLESTON.

This writer (*Charleston Medical Journal and Review*, February, 1876) considers that affected joints must be given absolute rest, and the acute symptoms relieved by leeches and the cold or warm douche, as the patient prefers. After these have subsided, he knows of no remedy so beneficial as the actual cautery, applied lightly to many points around the joint, so as only to involve the epidemis and the superficial layer of the chorion.

## RÉSUMÉ OF REMEDIES.

*Acetum.* Cider vinegar, more or less diluted, has been found of good service in chronic gleet.

*Alumen.* A saturated solution of burnt alum, used as an injection three times a day, is commended by Dr. A. DE Vos, of Belgium, as the best of all injections in gonorrhœa when the acute symptoms are subsiding.



*Argenti Nitras.* The employment of this agent in gonorrhœa has been much discussed. The abortive method by strong injections (gr. xxx-3j, to water f.3j) has deservedly fallen into disrepute. This strength may, however, be safely applied to the vagina in specific vaginitis. It should be painted on the part with a brush through a speculum. In the male, the strength in the first stage should not be beyond gr. ¼ to the ounce of water. This may be used every three hours until the substitutive inflammation has been established.

*Belladonna* is of service in *chordee* and the genesic erethism which precedes the disease. Dr. VAN DEN CORPUT prescribes—

1584. R. Extracti belladonnæ, gr.ij  
Camphoræ,  
Lupulinæ, āā gr.xij. M.

For eight pills. From two to four at night.

*Bismuthi Subnitratis* is a popular ingredient in injections. It is best suspended in thin mucilage. Its action is mechanical, in keeping the inflamed surfaces asunder. The solution must be prepared fresh every day, as it sours and becomes irritating.

*Chloral, Hydrate of*, has been used as an injection, gr.v-x to aquæ f.3j.

*Cadmii Sulphas.* This has been used in acute gonorrhœa, gr.j to water f.3j-f.3iij.

*Camphora.* Professor RICORD's favorite remedy in *chordee* and *painful erections*:—

1585. R. Camphoræ pulvis,  
Lactucarii, āā gr.ij. M.

This amount in a pill every hour from supper until bedtime.

Dr. DURKEE gives f.3j of the spiritûs camphoræ in sweetened milk on going to bed. If the patient wakes with the *chordee*, he is to repeat the dose.

*Carbolicum Acidum* has been found efficient in recent cases. Mr. GEORGE ASHMEAD, L R. C. S., Edin., commends (*The Lancet*, December, 1871), the following.—

1586. R. Acidi tannici, ʒj  
Acidi carbolici, ʒij  
Glycerinæ, f.3j  
Aquæ, f.3vij. M.

Half an ounce of this as an injection, thrice daily.

*Colchicum* has been commended by Sir BENJAMIN BRODIE in the gonorrhœa of gouty subjects. He also gave ℥xxx of the wine at night for *chordee*.

*Copaiba* is regarded by many as a specific in gonorrhœa. It is contra-indicated by hyperæmia, and should not be exhibited until the acute symptoms have been conquered, and when the discharge is whitish and thick. Mr. BERKELEY HILL uses the following:—

1587. R. Copaibæ,  
Mucilaginis acaciæ,  
Aquæ cinnamomi, ʒij  
f.3vij. M.

Tablespoonful thrice daily.

This drug has been often used as an injection. LANGLEBERT employs an *aqua copaibæ*. Dr. DICK, of London, recommends—



1588. R. Olei copaibæ, f.ʒj  
 Pulveris acaciæ, ʒij  
 Aquæ, f.ʒvj. M.

In subacute gonorrhœa and in gleet this injection is to be used twice a day for a few days; afterward more frequently.

The formula of VELPEAU is as follows:—

1589. R. Copaibæ, f.ʒij  
 Tincturæ opii, f.ʒss  
 Mucilaginis acaciæ, f.ʒiss. M.

For an injection, to be repeated twice or thrice a day.

It is asserted that successful results have been obtained in this manner in cases in which the balsam could not be tolerated by the stomach.

*Creasote* has been administered in doses of gtt.j-ij, thrice daily (*Half-Yearly Compendium*, January, 1874).

*Cubeba* is often indispensable in gonorrhœa. It may be given in any and all stages of the disease with benefit. A pleasant form is the oleo-resin, gtt.x-xxx on a lump of sugar, three or four times a day. Some prefer the pill form, in which it may often be advantageously combined with copaiba and sandalwood oil:—

1590. R. Cubebæ olei,  
 Copaibæ olei,  
 Santali olei, āā f.ʒj  
 Magnesiæ, ʒij. M.

For sixty pills. Six to eight a day.

*Cupri Acetas* is preferred by some. Dr. REECE, of Paris, uses—

1591. R. Plumbi acetatis,  
 Cupri acetatis, āā gr.ix  
 Acidi acetici, gtt.v  
 Aquæ, f.ʒvij. M.

Use as an urethral injection, thrice daily.

*Cupri Sulphas* is a valuable remedy. In very weak solution (gr.j to aquæ f.ʒj) it may be used as an abortive. After the acute stage has passed, the following is a useful formula:—

1592. R. Cupri sulphatis, gr.iv  
 Morphiæ sulphatis, gr.vij  
 Liquoris plumbi subacetatis, f.ʒj  
 Aquæ rosæ, f.ʒiv. M.

About half an ounce thrice daily as an injection.

*Erigeron Canadensis*. The oil of the Canada fleabane, in doses of gtt.v-xx every two or three hours, has been found by Dr. G. A. STARKE, of Milwaukee (*Canada Medical and Surgical Journal*, May, 1876), to cure gonorrhœa in from two to six days.

*Ferri Chloridi Tinctura* has been found valuable as an internal remedy in the gleet of anæmic subjects.

*Ferri Subsulphatis Liquor*, in weak solution, gtt.v-x to aquæ f.ʒj, has been used with advantage in some obstinate cases of gleet.



*Hydrastin*. The yellow root has been highly lauded in gonorrhœa. Professor R. BARTHOLOW says he has seen no injection so frequently successful as—

1593. R. Hydrastiæ, ʒi  
                   Mucilaginis acaciæ, f.ʒiv. M.  
 A half ounce as an injection.

Dr. J. N. BREDIN (*Medical Times*, September, 1874) commends—

1594. R. Hydrastin, ʒj  
                   Morphiæ liquoris (Magendie), f.ʒij  
                   Mucilaginis acaciæ, f.ʒiv. M.  
 Employ three times a day.

*Kava Kava*, the root of the *Piper methysticum*, in form of infusion, has long been used in the islands of the Pacific Ocean as an agreeable popular remedy for gonorrhœa. It has lately been introduced into this country and France. A drachm and a half is macerated for five minutes in a pint of water, with frequent agitation. The infusion is filtered and given in two doses daily, before and after meals, until a cure is effected. Twenty minutes after the first dose the patient experienced a pressing desire to urinate. The urine passed is large in quantity and of a clear watery appearance. The smarting which is experienced at first in the discharge is removed, and a feeling of comfort supervenes: a cure is effected in from ten to twelve days. In addition to this the kava acts as a bitter tonic, is agreeable to take, promotes the appetite, does not incommode the digestive organs, and finally occasions neither diarrhœa nor costiveness.

*Kaolin* or white clay, suspended in water, was introduced as an injection by Dr. F. W. GEDON, of New York. He mixes the earth with water to a thin paste and throws from two to three drachms in the urethra once or twice a day. The disease yields in five or six days.

*Nitricum Acidum* makes an excellent injection in gleet. The strength of the solution should be gtt.ij to water f.ʒj, of which f.ʒj-ij should be thrown up frequently.

*Opium* and its alkaloids render important service in the acute inflammatory stage of gonorrhœa. The following is a good formula:—

1595. R. Extracti opii aquosi, gr.vij  
                   Liquoris plumbi subacetatis, f.ʒj  
                   Glycerinæ, f.ʒij  
                   Aquæ destillatæ, ad. f.ʒiv. M.

Use as an injection, two or three times a day, to lessen the painful smarting from micturition.

*Plumbi Acetas* forms a cooling and astringent injection. The following combination has been found excellent, in spite of the chemical change which takes place in it:—

1596. R. Liquoris plumbi subacetatis diluti, f.ʒiv  
                   Zinci sulphatis, gr.viiij. M.

As an injection in inflammatory gonorrhœa.



*Potassii Bromidum* is a valuable injection in the acute stage :—

1597. R.	Potassii bromidi,	ʒiss.	
	Glycerinæ,	f.ʒijss	
	Aquæ,	f.ʒiv.	M.

Use lukewarm, twice daily, in acute gonorrhœa.

*Potassii Chloras* is especially useful in specific vaginitis. A useful combination of the potash salts is :—

1598. R.	Potassii chloratis,	ʒiv	
	Potassii permanganatis,	gr.x	
	Aquæ,	ʒj.	M.

Inject a teaspoonful night and morning in vaginitis.

*Potassii Permanganas* is extolled by Dr. WILLIAM A. HAMMOND. He believes it has the power of destroying the contagious property of the secretion from the mucous membrane :—

1599. R.	Potassæ permanganatis,	gr. ¼-ij	
	Aquæ,	f.ʒj.	M.

The weaker solution should be used first, and gradually increased. Eight or ten injections should be made in the twenty-four hours.

*Quiniæ Sulpha* has been used with great advantage in the acute stage, where there is much scalding and a profuse discharge :—

1600. R.	Quiniæ sulphatis,	gr.xvj	
	Acidi sulphurici diluti,	f.ʒj	
	Aquæ rosæ,	f.ʒviij.	M.

Use half an ounce twice daily as an injection.

*Santalum.* Sandalwood oil has of late been prominently urged as a cure for gonorrhœa. It is given in capsules, or in the following prescription, which is that of Dr. THOMAS B. HENDERSON, who introduced this product to notice :—

1601. R.	Olei santali,	gtt.xx-l	
	Alcoholis,	f.ʒj	
	Olei cinnamomi,	gtt.ij-v.	M.

This amount three times a day, in water.

Dr. FRANK F. MAURY gives gtt.xv, thrice daily, on sugar. This remedy sometimes causes vertigo, of which the patient should be notified.

BERKELEY HILL recommends the following formula :—

1602. R.	Olei santali,	f.ʒss	
	Liquoris potassæ,	f.ʒj	
	Aquæ menthæ piperitæ,	f.ʒiv.	M.

A dessertspoonful thrice daily.

*Tannicum Acidum*, dusted on the part, is the best application in *balanitis*, *blennorrhœa of the glans*, and *herpes præputialis*. It may also be



dissolved in glycerine, and applied with a brush. As an injection in subacute gonorrhœa, RICORD prescribes—

1603. R. Acidi tannici,  $\mathfrak{z}^{ss}$   
Vini rubri, f.  $\mathfrak{z}$  viij. M.

A favorite combination with Mr. WILLIAM ACTON, of London, was—

1604. R. Acidi tannici,  
Zinci sulphatis,  $\bar{a}\bar{a}$  gr. ij  
Aquæ, f.  $\mathfrak{z}$  ij. M.

This amount to be used repeatedly during the day as an abortive injection.

*Terebinthine Oleum*, in small doses internally, frequently hastens the cure of the urethral discharge when it is accompanied with an atonic condition of the parts. Ten to fifteen drops in globules may be prescribed.

*Zinci Biboras* has been recently used with success in injection, gr. ij to aquæ f.  $\mathfrak{z}$  j.

*Zinci Chloridi*, gr. j to water f.  $\mathfrak{z}$  j, is useful in gleet.

*Zinci Sulphas*, a popular astringent ingredient, gr. j-ij to aquæ rosæ f.  $\mathfrak{z}$  j, for injections.

#### EXTERNAL MEASURES.

*Catheterism*, by medicated bougies, is practiced by many surgeons in obstinate gleet. It is usually painful, and should be adopted cautiously. The following ointments may be used to cover bougies of wax or rubber:—

1605. R. Argenti nitratis, gr. xv-xxx  
Adipis,  $\mathfrak{z}$  j. M.

1606. R. Acidi tannici,  $\mathfrak{z}$  j  
Adipis,  $\mathfrak{z}$  j. M.

1607. R. Hydrargyri chloridi mitis,  $\mathfrak{z}^{ss}$   
Adipis,  $\mathfrak{z}$  j. M.

1608. R. Potassii iodidi,  $\mathfrak{z}$  j  
Adipis,  $\mathfrak{z}$  j. M.

1609. R. Extracti belladonnæ,  $\mathfrak{g}$  iv  
Adipis,  $\mathfrak{z}$  j. M.

*Counter-irritation* has frequently been employed in chronic urethritis. *Blisters* may be applied high up on the inner surface of the thigh. Dr. DURKEE extols them highly when there is no stricture present. In obstinate cases, the perineal integument may be strongly irritated with compound tincture of iodine with advantage.



# SYPHILIS.

DR. MCCALL ANDERSON, ENGLAND.

This author is convinced that mercury is indispensable in constitutional syphilis, and believes that the patient should be brought fairly under the influence of the drug, although in no case should salivation be produced. His favorite formula for its exhibition is—

1610. R.	Potassii iodidi,	℥j	
	Hydrargyri chloridi corrosivi,	gr.ij	
	Potassæ chloratis,	℥ss	
	Infusi quassiaë,	f.℥viij.	M.

One or two teaspoonfuls after each meal.

WILLIAM AITKEN, M. D., EDINBURGH.

1611. R.	Hydrargyri chloridi corrosivi,	gr.j	
	Potassii iodidi,	gr. xxx	
	Liquoris potassæ arsenitis,	℥, xxxvj	
	Alcoholis,	f.℥j	
	Extracti sarsaparillaë fluidi,	f.℥iiij	
	Aquæ cinnamomi,	ad. f.℥xij.	M.

Two tablespoonfuls three times a day, after meals, in the treatment of some of the more intractable forms of syphilitic squamæ.

JOHN K. BARTON, M. D. (DUBLIN), F. R. C. S. I., ETC.

Our author recommends mercury as generally necessary in the first and second stages of the disease, though, with RICORD, he believes its action is limited to causing the disappearance of the symptoms present when it is administered, and that it cannot be considered capable of neutralizing the poison. He lays great stress upon its gradual introduction into the system, and, in common with COLLES, BRODIE and SIGMUND, prefers that this should be effected by inunction.

The patient's diet and daily habits should in the first place be regulated; the former should consist of meat once daily, without any stimulants beyond beer or porter, sometimes better without any at all. He should keep regular and early hours, going to his bed not later than ten o'clock, and not rising before eight in the morning; during the day he may be engaged in business, if it be not of a laborious or exciting description.

1612. R.	Unguenti hydrargyri,	℥j.
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Of this half a drachm should be rubbed in each morning after breakfast, for twenty minutes or half an hour. The morning is



the best time, because then the patient is the most vigorous; and besides, if rubbed at night, the heat and perspiration produced by lying in bed will cause a considerable loss of the ointment, and the patient breathes an atmosphere loaded with mercury. Unless the full time mentioned be given to the rubbing, half the ointment will be inefficient. It is usually necessary to impress the importance of this upon the patient, who, however, in a very short time lends a willing aid to the surgeon, finding his symptoms disappearing gradually, and his general health and strength improving rather than decreasing.

The inside of the thigh and popliteal space is the region where the inunction can be practiced. The patient should be told to rub in on each thigh upon alternate mornings, carefully washing off the old ointment with warm water and soap before commencing the new inunction; this prevents the skin from becoming irritated, and mercurial eczema appearing; if, however, a few scattered pustules do appear, the rubbing should be applied to the axillæ for a time. He is in the habit of directing the patient to take a hot-air or Turkish bath once or twice a week during treatment, and finds it not only preserves the skin from irritation by thoroughly cleansing it, but also facilitates the action of the mercury; patients, including those in hospital, always express a sense of comfort and relief from the use of the bath.

Many cases, particularly those belonging to the first division of the tertiary stage, are most benefited by a combination of mercury and iodide of potassium. For this purpose add to the recipe  $\text{gr. } \frac{1}{16} - \frac{1}{12}$  of the corrosive chloride, or the biniodide of mercury, to each dose.

When our author employs mercury internally in secondary syphilis, he considers the following a good combination:—

1613. R.	Pilulæ hydrargyri,	3j	
	Extracti opii,	gr.v.	M.

For twenty pills. One of these daily will be as good internal treatment as is possible.

Iron or quinine may at times be advantageously combined with some of the preparations of mercury, particularly when marked symptoms of anæmia show themselves at the commencement of the secondary period, which is very frequently the case in women.



1614. R. Pilulæ hydrargyri,  
Ferri sulphatis exsiccatae,  
Extracti opii,  
For twenty pills. gr.xx  
gr.x  
gr.v. M.
1615. R. Hydrargyri cum cretâ,  
Quiniæ sulphatis,  
Extracti opii,  
For ten pills. aa ðj  
gr.iiij. M.

The special treatment for *secondary ulceration of the throat* is :—

1616. R. Argenti nitratis,  
Aquæ destillatae,  
gr.xxx-xl  
f.3j. M.

To be freely applied over the velum and back of the pharynx every day, or every other day, while any ulceration or redness continues. The solution may be used with the spray producer.

If toward the close of the secondary period sore throat reappears, as it often does, it then does not yield so rapidly, and it will be necessary to prescribe the following mixture, which will quickly cause it to heal :—

1617. R. Potassii iodidi,  
Potassæ chloratis,  
Aquæ,  
Two tablespoonfuls thrice daily. ðij  
ðiv  
f.3viij. M.

In the tertiary stage, our author employs iodide of potassium, in doses of from eight to ten grains thrice daily. A salt of ammonia added to the solution seems to increase the activity of the iodide, thus :—

1618. R. Potassii iodidi,  
Ammoniæ muriatis,  
Tincturæ cinchonæ compositæ,  
A teaspoonful, in a wineglassful of water, thrice daily. 3iv  
3ij  
f.3iv. M.

FREEMAN J. BUMSTEAD, M. D., NEW YORK.

1619. R. Hydrargyri chloridi mitis,  
Tincturæ opii,  
Cerati simplicis,  
gr.xxxvj  
f.3j  
f.3j. M.

For application to chancre when an unctuous dressing is required. It is much used in French hospitals. Unguents are less desirable than lotions, and should only be employed when the evaporation of a water-dressing cannot be prevented, even with the assistance of oiled silk and glycerine, as may happen from the position of the sore, and during a journey, etc.



In most cases the lotion may consist of simple water or glycerine. When medicated, such ingredients should, as a general rule, be added as will not leave a deposit, or change the aspect of the sore, and thus render its condition obscure. The following may be used:—

1620. R. *Acidi nitrici diluti,* f.ʒj  
*Aquæ,* f.ʒviii. M.

The strength may be varied with the sensibility of the part. When the sore is situated upon the external integument, the dressing should be covered with oiled silk.

Chancres located beneath the prepuce may be dressed with dry lint, which will be sufficiently moistened by the natural secretion of the part. Indurated chancres are not liable to give rise to successive sores in the neighborhood, and hence astringents and disinfectants are rarely required. When the chancre assumes an excavated form, as is commonly seen in the furrow at the base of the glans, scraped lint is preferable to dry linen, since it is a better absorbent.

The frequency with which local applications are to be changed must be determined by the amount of the secretion. A second dressing should be substituted before the first is soaked with the discharge. The dressing of the most uncomplicated chancres need be renewed only two or three times a day, but phagedenic ulcers require a much greater frequency.

1621. R. *Ferri et potassæ tartratis,* ʒss  
*Syrupi,*  
*Aquæ,* āā f.ʒiij. M.

From two teaspoonfuls to a tablespoonful three times a day, within an hour after meals, in phagedenic chancres, and a lotion containing the same salt to be applied to the ulcer.

RICORD calls this preparation the “born enemy” of phagedena.

*Rules for giving Mercury.*—Avoid mercury in all chancroids and all doubtful cases; even in well-marked cases of true chancre it is better to defer the administration of mercury until secondary symptoms appear. It should be used, however, if the chancre assumes a phagedenic form, or if circumstances demand that the sore be speedily healed.

When giving mercury, do so actively, and for short periods, rather than in small and long-continued doses.



The corrosive chloride is the least desirable of all the preparations for internal administration. He prefers either the pilulæ hydrargyri or the protiodide. The latter should be given half an hour or an hour after meals, as it is irritating to some stomachs. He most frequently employs:—

1622. R. Mass. pilulæ hydrargyri, gr.ij-ijj  
 Ferri sulphatis exsiccata, gr.j. M.

This amount, in a pill, three or four times a day, one hour after eating.

BERKELEY HILL, M. B., LONDON, F. R. C. S., ETC.

Our author states that in the treatment of soft chancres the first thing is to remove general causes of irritation, such as too stimulating diet, wine, and especially venery. All severe exercise must be relinquished; in fact, confinement to the house for some days is often time gained by the progress the sore makes with rest. While the wound is healing the patient should always avoid standing long at a time, to lessen the risk of bubo; the horizontal position, moreover, greatly promotes healing of the sore. If erections at night are troublesome, they may often be prevented by the patient's last meal being a light one, taken two or three hours before bedtime. For persons of ordinary health it is not necessary to do more than this, but if patients are exhausted, or in a debilitated condition, ordinary rules for improvement of the health are necessary; quiet rest, with good diet and stimulants, must be freely given. The digestion may be invigorated by tonics, such as—

1623. R. Acidi nitrici diluti, f.ʒj  
 Extracti cinchonæ fluidi, f.ʒij. M.

From thirty to forty-five drops, in water, thrice daily.

Or,

1624. R. Tincturæ ferri chloridi,  
 Spiritus chloroformi,  
 Glycerinæ, aa f.ʒj. M.

A teaspoonful thrice daily, in water.

#### LOCAL TREATMENT OF THE SORES.

Most sores need only cleanliness to allay irritation and induce them to granulate. The sore should be washed three or four times a day while the discharge is abundant, and covered with pieces of lint dipped in cold water, over which oil silk should be wrapped, if the sore is situated in an outward part, like the dorsum penis or groin. If the patient is a man, he should be directed to support



the penis in a suspensory bandage or handkerchief against the abdomen, never to let it hang down, and to be particular that the dress is loose enough not to chafe the parts in walking. If the sore is underneath the foreskin, the lint should be so interposed that the skin does not touch it, both to prevent the sore being chafed and to avoid the formation of fresh ulcers.

As chancres may excite bubo at any period of their existence, destruction of their surface with caustic may prevent this consequence whenever it is employed. Still, this advantage is not sufficient in practice to require the invariable use of caustics, as the chance of a particular sore not being accompanied by a bubo is two to one, even when left to run its course. Besides this, it is often exceedingly difficult to destroy several sores thoroughly by one application of caustic; hence the patient, after having undergone all the suffering and inconvenience of cauterization, may be disappointed on finding, in a few days, his sore assume its original character.

Among the most effectual caustics is one RICORD prefers. He makes a paste of powdered charcoal and strong oil of vitriol, which he lays on and rubs into the chancre. In a few minutes the surface is destroyed, and forms an eschar or crust, which falls off in a week, leaving the sore a simple granulating surface. It is a very effective remedy, being not liable to overflow the sides of the ulcer and attack the healthy skin, as is the case with liquid caustics. But it is not always at hand, hence less convenient than another—the *strongest nitric acid*.

The best way to use this is to daub it, with a glass brush, over the floor and edges of the ulcer, and allow it to soak well into the surface of the sore for a few minutes, before the excess of acid is neutralized with a little carbonate of soda dissolved in water. The skin surrounding the ulcer should be protected by grease, but the edges may be left clear for the action of the caustic. The chloride of zinc and caustic potash are slower in action, and must be left longer in contact with the sore, or they will not penetrate deeply enough to destroy it altogether. The actual cautery, by hot iron or galvanic wire, is at times very useful when a large amount of tissue has to be destroyed; otherwise it is not preferable to chemical caustics, while it alarms the patient much more than the latter. When the caustic has done its work and the excess is washed away with cold water, the sore should be wrapped in wet lint, and



the pain, which often lasts several hours, can be assuaged by the constant application of ice-cold water. The eschar usually separates in four or five days, and leaves a clean granulating surface.

A favorite mixture of our author, in the late form of the disease, is the freshly formed red oxide of mercury, which he makes according to the following formula:—

1625.	R.	Hydrargyri chloridi corrosivi,	gr.iiij	
		Potassii iodidi,	ʒv	
		Ammoniae carbonatis,	ʒi	
		Tincturae cinchonae compositae,		
		Aquae,	aa	f.ʒiv. M.

A teaspoonful thrice daily, half an hour before meals.

PROF. EDMUND LANGLEBERT, PARIS.

For *soft chancres* (chancroids) it is often needless to employ cauterants. It is sufficient to dress them several times daily with one of the following

#### ASTRINGENT LOTIONS.

1626.	R.	Aluminis,	ʒij-iv	
		Aquae rosae,	f.ʒiiij.	M.

1627.	R.	Vini opii,	m̄xv-xxx	
		Vini aromatici,	f.ʒiiij.	M.

(For formula for vinum aromaticum, see F. 1661.)

1628.	R.	Extracti opii,	gr.xv-xxx	
		Decocti cinchonae,	f.ʒiiij.	M.

1629.	R.	Acidi tannici,	gr.xv-xxx	
		Aquae rosae,	f.ʒiiij.	M.

1630.	R.	Argenti nitratis,	gr.xv-xlv	
		Aquae destillatae,	f.ʒiiij.	M.

1631.	R.	Tincturae iodinii,	f.ʒiss-ijss	
		Aquae destillatae,	f.ʒiiij.	M.

1632.	R.	Ferri et potassae tartratis,	ʒiv-ʒv	
		Aquae destillatae,	f.ʒiiij.	M.

1633.	R.	Zinci chloridi,	gr.iss-iiij	
		Aquae destillatae,	f.ʒiiij.	M.

The lotions of potassio-tartrate of iron and of the chloride of zinc are particularly indicated in order to combat *phagedena*. For the same purpose, the following may also be prescribed:—

1634.	R.	Pulveris carbonis ligni,		
		Pulveris cinchonae,	aa	ʒijss. M.



- |          |   |                                |    |
|----------|---|--------------------------------|----|
| 1635. R. | Creasoti,<br>Aquæ destillatæ,                             | gtt. xv-xlv<br>f. 3x.          | M. |
| 1636. R. | Potassii iodidi,<br>Tincturæ iodinii,<br>Aquæ destillatæ, | gr. xv<br>f. 3iss-v<br>f. 3ij. | M. |

The last recipe is the one which has given the best results in the hands of our author.

DR. J. L. MILTON, EDINBURGH.

This writer (*Edinburgh Medical Journal*, March, 1875) states that he has found "Zittmann's decoction" a very important aid in secondary syphilis. This is the *decoctum sarsaparillæ compositum* of the *German Pharmacopœia*, and contains small portions of senna and of the mild chloride of mercury and red sulphide of mercury. A formula for it is given in the *United States Dispensatory* (thirteenth edition).

Mr. MILTON says that chance led him to try the Zittmann decoction, and with such surprisingly good results that he now uses it in every case and form of syphilis. He first administers a course of iodide of potassium and bichloride of mercury. He strongly advises that, at the outset, the dose should be very small, not more than two or three grains of the potassium, and from the thirtieth up to the twentieth of a grain of the perchloride. Nothing can militate more effectually against the success of the treatment than to risk setting up irritation by giving the remedies too freely at first, or even by raising the strength of them too rapidly at any time. The object in view is effectually defeated so soon as ever symptoms of iodic poisoning begin. There is no choice but to entirely abandon the medicine for some days, perhaps weeks, but certainly until the symptoms have quite abated.

But all precautions, for the purpose of enabling the stomach to bear the potassium and mercury, fail more or less frequently unless aperients are combined with them, and the patient is restricted to a proper diet. As to the aperient, it is essential that it should consist of two chief ingredients—a pill to be taken over night, and a draught for morning use. He has repeatedly tried both separately, and has failed quite often enough with both to deter him from any repetition of the experiment. The pill may consist of colocynth, blue pill, and hyoscyamus, or a mixture of rhubarb, soap, and jalap; a sedative or aromatic, sufficiently potent to obvi-



ate griping, is an essential feature in its composition. For the purgative draught nothing equals a freshly prepared salts and senna mixture. There may be at the outset some depression after a brisk aperient, but the reaction which follows is generally attended by a feeling of relief, of greater fitness to work, mental or bodily, and better spirits; signs not at all likely to attend a prejudicial action of the medicine.

So soon as ever these symptoms are observed, the dose of the iodide and perchloride may be raised at the discretion of the practitioner. He seldom, in his own practice, goes beyond five grains of the former, and an eighth of a grain of the latter, two or three times a day, and always stops short of setting up much irritation. The combined treatment is continued for four or five weeks prior to the beginning with a mercurial bath, and, if possible, during the whole time it is employed.

Directly the dose of the iodide is increased, the patient may begin to take a simple vapor-bath once or twice a week, and under any circumstances a course of these should precede the use of the medicated bath. After a few weeks of simple vapor-bath, a mercurial vapor-bath may be taken twice or three times a week. After a few weeks of this, he places the patient on the Zittmann decoction for eight days. He modifies the decoction, however, quite materially. He omits the sarsaparilla, the antimony, and perhaps the mercury; so that the mixture becomes, in reality, a decoction of senna highly diluted by liquorice and aromatics. In other words, Mr. MILTON's treatment is one in which the system is brought *very gradually* under the influence of mercury and iodide of potash, and is from time to time *very thoroughly* purged. If the purging leads to loss of appetite and debility, he administers dilute nitric, or muriatic, or phosphoric acid, to restore its tone.

DR. ALEXANDER McBRIDE, OF CINCINNATI.

This practitioner (*Lancet and Observer*, December, 1873) is one of several who, in the last few years, have urged the restoration of *guaiacum* to its old place as a very valuable remedy in syphilis. He has employed it for ten years with excellent results. He gives the drug in pill form, but it must be made in a particular manner, or it will be nauseous, and the patient will tire of it. Alcohol, and nothing else, is the only proper excipient. The way to make the pill is as follows: Pulverize the guaiac and sift out ligneous



and cortical impurities; then let the operator be in a warm room, have the mortar warm, and the pill machine warm; put the powdered gum into the mortar, add very sparingly of alcohol, beat thoroughly, and add more if necessary, but be careful and not get in too much. The object aimed at is to form a mass as stiff as can be worked by means of warmth and a very little alcohol. When the mass is formed, work it rapidly into pills, and roll them into a cold tin pan, in a cool room. If one makes these pills any other way, they will prove more or less a failure.

Use no pulverized licorice, or other powder. If one uses never so little too much alcohol, the pill will be soft, and never harden.

Of these pills, the patient can take from nine to eighteen per day, usually twelve, and will declare he feels better all the time; so much so, that if he runs out of pills he will soon call for more. This treatment applies to secondary and tertiary, is excellently adapted to external or cutaneous manifestations, and may be carried out without other medicines.

#### ABORTIVE TREATMENT OF CHANCRE.

SILAS DURKEE, M. D., ETC., BOSTON.

If, as the result of contagion, or of a suspicious connection, the virile organ has upon it a papule, pustule, abrasion, or sore, which *may* be the forerunner of constitutional syphilis, the best thing the surgeon can do, locally, is to make a caustic application to the spot, if this can be done seasonably, say within ten days from the appearance of the abnormal condition. The design of this operation is twofold: to destroy morbid structure, and to create a healthy recuperative action in the part. Our author employs for this purpose *potassa fusa*, the *acid nitrate of mercury*, or *concentrated nitric acid*. He never uses nitrate of silver or Vienna paste.

In cases of abrasion, he generally applies *nitric acid* by means of a small bit of lint secured to a silver probe, or, if the surface be very small, by means of the end of a glass rod. The sore is to be freely covered with the acid, warm water being at hand to wash off any excess immediately. The *acid nitrate of mercury*, when used, is applied in the same manner. The slough will be detached in three or five days, and a healthy granulating surface appear. If a solitary vesicle, pimple or pustule is to be destroyed, he sometimes selects *potassa fusa*, which penetrates deeper than either of the



liquids mentioned. The end of the stick is reduced to a point and brought in contact with the apex of the morbid growth, or, what is better, break the dome of the pimple with a probe, and empty it of its contents before applying the potassa. To ascertain precisely the work done by the alkali, remove the *débris* or portion destroyed by means of the point of the probe. As the operation is painless, no haste is required, but caution and exactness are both necessary. It is difficult to preserve the solid stick of potassa in a dry state, therefore it had better be applied placing it on the end of a pointed glass rod or pen. A drop of vinegar will neutralize any superabundance of the caustic. The extent of the surface destroyed by this corrosive substance is about twice as great as it appears to be at the time of its application; the same is also true in regard to the depth to which it penetrates.

As the risk of increasing the inflammatory tendency is small, a moderate degree of inflammation co-existing with the pustule or sore need not prevent cauterization.

Cold-water dressing, or a soft cracker poultice, may follow the use of the caustic for two or three days. The first is to be preferred. The patient should rest and diet. When the eschar has separated, dress with—

1637. R. Ferri et potassæ tartratis, ℥ij  
 Aquæ, f.℥viij. M.  
 To be applied on lint. *Nitric acid* (gtt.ij to aquæ f.℥j) makes a clean and  
 suitable dressing also.

If the purulent discharge be abundant, order :—

1638. R. Acidi tannici, gr. xv  
 Vini aromatici, f.℥iij. M.  
 (For vinum aromaticum, see F. 1661.)

If the sore becomes painful, lay over it a piece of lint soaked in—

1639. R. Extracti opii, ℥ij  
 Aquæ, f.℥iv. M.

In occasional instances, after the application of the caustic and the after-dressing mentioned, the sore assumes a spongy or fungoid aspect. Then apply—

1640. R. Acidi tannici, ℥i.  
 Tincturæ lavandulæ, f.℥ss  
 Vini rubri, f.℥iv. M.



## CONSTITUTIONAL TREATMENT OF CHANCRE.

Our author is partial to the use of corrosive sublimate internally in the treatment of indurated chancre. He advises its use in pill form :—

1641. R. Hydrargyri chloridi corrosivi,  
 Ammoniae muriatis,                      āā      gr.xvj  
 Aquae destillatae,                              f.℥iss.      M.

Make a solution, and make up with bread crumbs into one hundred and twenty-eight pills.

The formula gives one-eighth of a grain of corrosive sublimate to each pill. One to be taken morning and night, immediately after meals. In five or six days one may be taken thrice daily. If pills cannot be taken, order—

1642. R. Hydrargyri chloridi corrosivi,  
 Ammoniae muriatis,                      āā      gr.vj  
 Tincturae cinchonae compositae,                      f.℥ij  
 Aquae,    f.℥iv.      M.

A teaspoonful morning and evening for one week; afterward thrice daily, directly after eating. When this medicine has been taken for twelve or fifteen days, it is good practice to omit it for four or five days, and then resume it.

## PROF. S. D. GROSS, PHILADELPHIA.

1643. R. Unguenti hydrargyri nitratis,                      3j  
 Cerati simplicis,                                      3vj-3j.      M.

In the treatment of chancre no remedy is so efficacious as this. The objection made to greasy applications can only be considered as having any force when there is a want of cleanliness. The dressings should be changed every five or six hours, and care should be taken that the ointment shall always be very fresh. When the parts begin to granulate, apply—

1644. R. Cerati zinci carbonatis,                      3j  
 Adipis,    3vj.      M.

Or, merely a bit of dry lint carefully interposed between the contiguous surfaces often promotes cicatrization with remarkable rapidity.

1645. R. Hydrargyri chloridi corrosivi,                      gr.j  
 Potassii iodidi,                                      3ij  
 Syrupi sarsaparillae compositi,                      f.℥iij.      M.

Dessertspoonful thrice daily, shortly after meals, in tertiary syphilis.



Professor GROSS almost invariably combines the bichloride of mercury with iodide of potassium in the treatment of tertiary syphilis, particularly when the affection is of long standing. An infirm, broken state of the system is no bar to the use of mercury in this mode of combination; on the contrary, it often affords the medicine an opportunity for its best display. To counteract any disagreeable effects of the above recipe, such as gastric irritation, diarrhœa, etc. (which, however, rarely ensue), an anodyne, as a small quantity of morphia, or from five to ten drops of the acetated tincture of opium, may be combined with each dose.

In regard to the dose of iodide of potassium in the treatment of tertiary syphilis, Professor GROSS states that long experience has taught him that while less than ten grains thrice daily will rarely do much good, there are few cases in which more than this quantity is really ever needed.

With reference to the employment of iodide of sodium and iodide of ammonium as substitutes for iodide of potassium, Professor GROSS sometimes recommends their use in five-grain doses. CULLERIER says that the iodide of ammonium gives no better results than the iodide of potassium, and he has abandoned its use. It has been asserted, however, on good authority, that the iodides of sodium and ammonium will sometimes succeed in doses in which the iodide of potassium has failed. (TANNER, and others.) They are more nauseous than the iodide of potassium.

Bromide of potassium has been employed in tertiary syphilis recently. CULLERIER says no reliance can be placed on this remedy; BERKELEY HILL asserts that in small doses, in conjunction with the iodide, it increases the energy of the latter very materially. It should be borne in mind in administering the bromide of potassium that it is decomposed by a syrup.

To overcome the disagreeable taste of the iodide of potassium, so often complained of by patients, PAGET says that a mixture of whisky and the compound syrup of sarsaparilla makes the best vehicle.

#### M. LIEGEOIS. ~

Our author employs the following formula for the hypodermic injection of corrosive sublimate in secondary syphilis:—

1646.	R.	Hydrargyri chloridi corrosivi,	gr. iij
		Morphiæ muriatis,	gr. iss
		Aquæ destillatæ,	f. 3xxiijss. M.

m℥vss. (= about gr.  $\frac{1}{2}$  of the sublimate). Ordinarily no inflammation follows this injection.



## DR. FRANK F. MAURY, PHILADELPHIA.

This surgeon prefers, as a cauterant to the primary sores, either the fuming nitric acid or the acid nitrate of mercury. His abortive treatment of bubo is to paint it with six coats of tincture of iodine morning and evening, and in the intervals a half-brick, heated as hot as it can be borne, is wrapped in flannel and placed over the swelling. This leads to resolution of the tumor.

For constitutional treatment he has found much advantage from Gibert's syrup, as follows:—

1647. R.	Hydrargyri iodidi rubri,	gr.ij
	Potassii iodidi,	ʒj-ij
	Aquæ,	f.ʒj.
Dissolve, filter and add		
	Syrupi simplicis,	f.ʒvij.
A tablespoonful three times a day.		

## DR. H. E. WOODBURY, PHILADELPHIA.

This writer condemns (*Medical Times*, October, 1874) the custom of opening buboes by free incisions. It is sufficient to pass a narrow-bladed bistoury through the gland, and then inject a drachm of diluted tincture of iodine (one part to four of water). In some cases the use of the knife can be altogether avoided by the following treatment:—

The patient is confined to his bed; a half-brick, covered with flannel—a single thickness—is laid upon the bubo. A lump of ice is kept upon the brick, and as it melts, the flannel is saturated with ice-water. He has seen a large bubo disappear in twenty-four hours under this treatment by cold and pressure; a combination of iodine and iodide of potassium in syrup of sarsaparilla being administered internally. If this course be resorted to at the proper time, the necessity for surgical interference will often be avoided. If the knife be used, the smaller the incision, the better and more rapid the cure.

## SURGEON W. S. W. RUSCHENBERGER, U. S. N.

1648. R.	Hydrargyri iodidi rubri,	gr.ʒ	
	Iodinii,	gr.ij	
	Potassii iodidi,	ʒj	
	Syrupi sarsaparillæ compositi,	f.ʒxv	
	Aquæ,	f.ʒj.	M.
Tablespoonful four times a day.			



PROF. J. LEWIS SMITH, M. D., NEW YORK.

In infantile syphilis, the following formulæ may be employed :—

1649. R. Hydrargyri cum cretâ, gr. iij-vj  
Sacchari albi, ʒj. M.  
Divide into twelve powders. One to be taken thrice daily.
1650. R. Hydrargyri chloridi corrosivi, gr. j-ij  
Syrupi sarsaparillæ compositi, f. ʒij  
Aquæ, f. ʒviiij. M.  
A teaspoonful thrice daily.

Mercury, in whatever form employed, should not be discontinued entirely until several weeks after the syphilitic symptoms in the child have disappeared. It is proper to continue it for a time, in diminished quantity, after the health seems fully restored.

When the mercurial is omitted, tonics are often required. The preparations of cinchona are useful in these cases, as are also those of iron. The liquor ferri iodide is especially useful in this class of cases.

THOMAS HAWKES TANNER, M. D., F. L. S., ETC., LONDON.

1651. R. Hydrargyri chloridi corrosivi, gr. ij  
Pulveris opii, gr. v-viiij  
Pulveris guaiaci, ʒss. M.  
Divide into sixteen pills. One twice or thrice a day, where it is desirable to continue the use of the corrosive sublimate over many weeks.

#### SYPHILITIC LARYNGITIS.

MELCHIOR ROBERT.

1652. R. Hydrargyri chloridi corrosivi, gr. ij-iiij  
Decocti conii, f. ʒvj. M.  
A useful gargle in syphilitic ulcers of the mouth and throat.
1653. R. Potassii iodidi, gr. xv  
Mellis despumati, f. ʒj  
Decocti hordei, f. ʒiv. M.  
A gargle, to be employed as above.
1654. R. Potassii iodidi, gr. ix  
Tincturæ iodinii, f. ʒss  
Aquæ destillatæ, f. ʒv. M.  
A gargle, to be employed as above.
1655. R. Hydrargyri chloridi corrosivi, gr. iij  
Vini opii, m. v  
Mellis rosæ, f. ʒj  
Aquæ rosæ, f. ʒvj. M.  
A gargle, to be employed as above.



## SYPHILITIC SORE THROAT.

DR. BIETT, FRANCE.

1656. R. Hydrargyri chloridi corrosivi, gr. ijss  
 Ammonii chloridi, ʒj  
 Vini opii, f. ʒj  
 Mucilaginis acaciæ,  
 Mellis despumati, aa f. ʒss  
 Aquæ destillatæ, f. ʒv. M.

A gargle, advised in syphilitic sore throat.

DR. ROSS, FRANCE.

1657. R. Tincturæ iodidi,  
 Tincturæ opii, aa f. ʒj  
 Aquæ destillatæ, f. ʒv. M.

This gargle is useful in syphilitic ulcerations of the throat.

## SYPHILIDES.

DR. BOINET, FRANCE.

1658. R. Acidi tannici, ʒiv  
 Tincturæ iodinii, gr. viij  
 Aquæ, ʒj. M.

A tablespoonful, in wine, twice or thrice daily, in syphilitic diseases.

H. GREEN.

1659. R. Hydrargyri chloridi corrosivi, gr. iv  
 Tincturæ gentianæ, f. ʒiv  
 Syrupi aurantii florum, f. ʒiss. M.

A teaspoonful thrice daily in secondary syphilis and chronic skin affections.

## VINUM AROMATICUM.

The following formula is given by BUMSTEAD, as a substitute for the aromatic wine of the French pharmacopœia, when it cannot be procured:—

1660. R. Claret wine,  
 Spiritus lavandulæ compositæ, aa f. ʒj½  
 Tincturæ opii, f. ʒj  
 Acidi tannici, gr. xv-ʒij  
 Aquæ, f. ʒviij. M.

The dressing should be renewed several times a day.



## APPENDIX.

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1. *Aeration, the use of compressed and rarefied air.*
2. *Endermic medication, rules for.*
3. *Hypodermic medication, formulæ and doses for.*
4. *Inhalation, formulæ and doses for.*
5. *Insufflation.*

### I. AERATION: THE USE OF COMPRESSED AND RAREFIED AIR.

The therapeutical effects of breathing air at different densities have long been matters of practical knowledge with the profession. Health resorts on mountains and by the sea have each claimed a particular class of patients. But the introduction of convenient apparatus to treat cases at their homes is very recent. That invented in 1875, by Dr. L. WALDENBURG, Professor in the University of Berlin, more or less modified, has been used in this country. Its value as a means of diagnosis is considerable. According to Dr. LOUIS ELSBERG, of New York, by means of it, dyspnoea, difficulty of breathing, which could hitherto be denoted by indefinite expressions only, can be characterized with exactitude both qualitatively and quantitatively—the first by showing whether it is inspiratory or expiratory, or both combined, the latter by determining in figures its precise extent or degree. And not only can the difficulty of breathing be determined when it exists subjectively as well as objectively, but in the first beginnings of a respiratory insufficiency, before the patient himself is conscious of it, except, perhaps, upon very unusual exertion, before we can discover its existence by any other method of examination hitherto known, the *pneumatometer* may indicate a deviation from healthy respiration. Again, in obscure cases of differential diagnosis, the weight of the evidence supplied by the *pneumatometer* may turn the scale in the right direction, when this might not be discernible without its revelation. Dr. B. FRANKEL, of Berlin, has for practical purposes suggested that, if a metal tube, with a mouth-piece surrounded by an inflated rubber cushion, be inserted into the bellows of an accordeon, a pneumatic apparatus is devised, which is quite serviceable in many cases. If the bellows are expanded by draw-



ing the accordeon apart, the air contained in it will be rarefied; if it is pressed together, the air is condensed. On the margin a scale should be placed, which will show how far the wooden sides of the bellows are apart, and thus indicate the amount of compression or rarefaction of the contained air. There is no danger in using such an instrument, as the utmost condensation which can be obtained by manual force is one-eighteenth of an atmosphere, and of rarefaction one-twentieth of an atmosphere. The patient should use the apparatus in a sitting posture, and apply his mouth to the cushion, and move the bellows with his hands; the rarefaction or condensation of the air in the bellows will thus be communicated to that in the lungs.

The uses of rarefied and compressed air are; first, to induce artificial respiration in cases of chloroform asphyxia, that of the new-born, that from carbonic oxide, drowning, and similar accidents; secondly, in emphysema, chronic bronchitis, asthma, partial hepatization following pneumonia, and similar affections; thirdly, in disorders of the circulation depending on mitral disease; fourthly, in phthisis.

In regard to the last-mentioned, its value is not at all established, but it is probable that it may prove a useful accessory to general measures. On the circulatory system the effect of breathing air at various densities is marked. Dr. JULIUS SOMMERBRODT (*Deutsches Archiv für Klinische Medicin*, Bd. XVIII) has shown that from the first inspiration of compressed air the pressure and amount of the blood is increased in the general circulation and decreased in that of the lungs, and the heart contracts more frequently and with greater force. When, therefore, there is passive hyperæmia of the lungs dependent on mitral insufficiency, for example, or chronic bronchitis, the use of compressed air is clearly indicated, as is the employment of rarefied air in the emphysematous condition so often associated with asthmatic complaints and recurrent coughs.

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## II. ENDERMIC MEDICATION, RULES FOR.

Endermic medication is the introduction of medicines into the system by causing their absorption from a denuded portion of the surface of the body. Those medicines only are adapted for administration in this way whose dose is not large, and which do not irritate the surface to which they are applied. *Morphia* is the one the most frequently given in this manner.

*The part best suited* for endermic medication is the epigastrium; but



any portion of the anterior surface of the body, or the inner surface of the thighs and arms, may be chosen for the application.

*The denuded surface* for the application is obtained by blistering; ordinarily the blister of cantharides is employed, but, in case of emergency, the more rapid action of the stronger solution of ammonia may be taken advantage of. The blistered surface should be, upon an average, three or four inches square.

*The medicine* should be finely powdered, and, if irritant, mixed with acacia or other bland substances. It should be sprinkled equally over the surface or applied upon simple cerate dressings. If liquid, or so soft that it cannot be powdered, it may be rubbed up with solutions of gelatine, mucilage, lard, or cerate, and applied upon pledgets of lint.

*The dose of medicines* given endermically may be twice or thrice that by the mouth. As the offending matter can be readily removed, there is less danger from overdose than in the case of medicines taken into stomach.

Though hypodermic has, in great measure, superseded endermic medication, Dr. BROWN-SÉQUARD protests (*Lancet*, March 10, 1866) against the abandonment of the latter, which possesses the double advantage of counter-irritation and rapid absorption, and may, in some cases, prove more useful than subcutaneous injection.

*Cautions.*—Sloughing and a permanent scar may result from the incautious employment of an irritant medicine, as has been the case with the application of undiluted sulphate of quinine.

### III. HYPODERMIC MEDICATION, FORMULÆ AND DOSES FOR.

#### APOMORPHIA.

The dose of apomorphia, hypodermically used, for an adult, ranges from gr.  $\frac{1}{10}$ – $\frac{1}{5}$ , but in children it is quite large in proportion.

For a child of 18 months.....	gr. $\frac{1}{50}$
“ “ 2 years .....	gr. $\frac{1}{40}$
“ “ 3 “ .....	gr. $\frac{1}{35}$
“ “ $3\frac{1}{2}$ “ .....	gr. $\frac{1}{35}$
“ “ 5 “ .....	gr. $\frac{1}{30}$
“ “ 8 “ .....	gr. $\frac{1}{25}$

Glycerine seems to preserve the strength of the drug, and alcohol will dissolve it more readily than water, so it may be prepared after the following formula:—



1661. R.	Apomorphia,	gr.vij	
	Spiritus rectificatæ,	℥xx	
	Glycerinæ,	℥x	
	Aquæ,	℥l.	M.

In a child of two years,  $\frac{1}{35}$  of a grain may be used.

*Therapeutics.*—A useful emetic in children with croup or diphtheria, in protracted labor from rigidity of the os, in poisoning, and generally where a prompt emetic effect is desired, and the hypodermic method indicated.

#### AQUA.

The use of *pure cold water*, by hypodermic injection, has been found very efficient in the relief of pain, especially that of a rheumatic and neuralgic character. The relief is often instantaneous and permanent. From gtt.x-xij may be used at once, and the injection repeated several times. The method was suggested by M. LÉLUT, of France, and has in this country been favorably reported upon by Dr. S. HENRY DESSAU, of New York, and others.

#### ARSENIC.

1662. R.	Liquoris potassæ arsenitis,		
	Aquæ destillatæ,	āā	℥iij. M.

For one injection, gradually increased to ℥xiv of Fowler's solution.

Prof. ROBERTS BARTHOLOW suggests that *liquor sodæ arsenitis* (in doses of ℥v, x, or even xv, on every other day) is less irritating than Fowler's solution.

*Therapeutics.*—Dr. RADCLIFFE has used arsenic hypodermically, with benefit, in cases of chorea, neuralgia, epilepsy and other nervous affections.

#### ATROPIA.

1663. R.	Atropiæ sulphatis,	gr.ij	
	Aquæ destillatæ,	f.ʒj.	M.

Five minims = gr. $\frac{1}{8}$ .

With this formula the dose can be better regulated than with stronger solutions.

*Dose.*—LORENT begins with gr. $\frac{1}{30}$  and goes up to gr. $\frac{1}{20}$ ; SUDEKUM and BEHRER, gr. $\frac{1}{60}$ ; HUNTER, gr. $\frac{1}{25}$ ; SCHOLTZ and OPPOLZER, gr. $\frac{1}{20}$ ; GRÆFE and DEPUIT, gr. $\frac{1}{12}$ ; NUDIFER, gr. $\frac{1}{10}$ ; COURTY, gr. $\frac{1}{6}$ ; BELL, gr. $\frac{1}{4}$ ; TROUSSEAU, gr. $\frac{1}{2}-\frac{1}{6}$ ; RUPPNER, gr. $\frac{1}{60}-\frac{1}{20}$ . Dr. BARTHOLOW says that 5℥ of (F. 1662), or  $\frac{1}{18}$  of a grain, is the largest amount desirable in most cases, and that it will be rarely necessary to inject more than gr. $\frac{1}{24}$  at one time.



## ATROPIA AND MORPHIA.

1664. R.	Morphiæ sulphatis,	gr.xvj	
	Atropiæ sulphatis,	gr.j	
	Aquæ destillatæ,	ʒj.	M.
Filter.			

Five minims = gr. $\frac{1}{6}$  of morphia and gr. $\frac{1}{60}$  of atropia. Or, combine f.ʒj of F. 1662 with f.ʒiv of F. 1663, making a solution of which 5 minims = gr. $\frac{1}{4}$  of morphia, and gr. $\frac{1}{20}$  of atropia.

*Therapeutics.*—Used in insomnia (in the proportion of gr. $\frac{1}{20}$ — $\frac{1}{60}$  of atropia to gr. $\frac{1}{4}$ — $\frac{1}{2}$  of morphia); neuralgia; epilepsy; asthma; angina pectoris, spermatorrhœa (atropia in excess); pelvic and uterine pain; rheumatic arthritis; muscular and acute rheumatism (in all such cases atropia in excess).

## CAFFEIN.

1665. R.	Caffeini puri,	gr.vj	
	Alcoholis,		
	Aquæ destillatæ,	āā f.ʒj.	M.
Twenty minims =	gr.j.		
1666. R.	Caffeini citratis,	gr.j	
	Glycerinæ,	gtt.xxiv.	M.
For one injection.			

*Dose.*—Gr.j.

*Therapeutics.*—In *neuralgia*, *hysterical headache* and *opium poisoning*. Prof. BARTHOLOW suggests that, as there is no incompatibility, caffein and atropia be used at the same time hypodermically in cases of opium narcosis. Dr. EULENBURG states that caffein, when injected in doses from one-fifth to two-thirds of a grain, relieves *occipital neuralgia* and *hysterical headaches* generally.

## CONIA.

1667. R.	Coniæ,	gr.ij	
	Alcoholis,	f.ʒij.	M.
Dissolve and add,			
	Aquæ destillatæ,	f.ʒij.	M.
Gtt.j =	gr. $\frac{1}{20}$ .		
1668. R.	Coniæ,	gr.ss	
	Alcoholis,	f.ʒss.	M.
Dissolve and add,			
	Aquæ destillatæ,	f.ʒiss.	M.
Five minims =	gr. $\frac{1}{48}$ .		



As these solutions quickly decompose, they should be freshly made for use.

*Dose.*—This ranges from gr.  $\frac{1}{20}$ — $\frac{1}{10}$ .

*Therapeutics.*—This drug has been employed in the treatment of *tetanus*, *asthma*, *emphysema*, *angina pectoris*, etc.

#### DATURIA.

1669. R. Daturiæ, gr. j  
Aquæ destillatæ, f. ʒij. M.  
Gtt. iv. = gr.  $\frac{1}{30}$ .

#### DIGITALIN.

1670. R. Digitalin, gr. ss  
Alcoholis, aa f. ʒj. M.  
Aquæ, aa  
Gtt. iv = gr.  $\frac{1}{60}$ .

1671. R. Digitalin, gr. j  
Glycerinæ, aa f. ʒij. M.  
Aquæ destillatæ, aa  
Gtt. iv = gr.  $\frac{1}{65}$ .

The *doses* employed have been as follows:—

EULENBURG, gr.  $\frac{1}{100}$ — $\frac{1}{60}$ ; FRANQUE, gr.  $\frac{1}{20}$ — $\frac{1}{10}$ ; LORENT, gr.  $\frac{1}{10}$ — $\frac{1}{5}$ ;  
PLETZER, gr.  $\frac{1}{20}$ .

#### ERGOT.

1672. R. Ergotinæ, gr. ij  
Alcoholis, aa f. ʒss. M.  
Glycerinæ, aa  
Five minims = gr.  $\frac{1}{6}$ .

1673. R. Extracti ergotæ fluidi, ℥xv  
For one dose.

*Dose.*—About gr.  $\frac{1}{6}$  of ergotin; from gtt. x—xv or more of the fluid extract of ergot (U. S. P.).

*Therapeutics.*—Used in *post-partum hemorrhage*, *epistaxis*, etc., and in *internal aneurism*, *enlarged spleen*, *enlarged prostate*, *tumors*.

#### ACIDUM HYDROCYANICUM DILUTUM.

1674. R. Acidi hydrocyanici diluti, ℥ij—iv.  
For one injection.

For ordinary purposes, the smaller dose should be preferred. It may be frequently repeated, as its influence is soon dissipated.

*Dose.*—℥ij—iv of the officinal dilute acid (U. S. P.).

*Therapeutics.*—This remedy is useful in *functional nausea* and *vomiting*, in *gastralgia*, and in *mental disorders*.



## MERCURY.

1675. R. Hydrargyri chloridi corrosivi, gr.ij  
 Aquæ destillatæ, f.ʒj. M.  
 Ten minims = gr.  $\frac{1}{4}$ .

DR. STAUB, GERMANY.

1676. R. Hydrargyri chloridi corrosivi,  
 Ammonii chloridi, āā ʒj  
 Sodii chloridi, ʒj  
 Aquæ destillatæ, f.ʒiv. M.  
 Dissolve and filter.

Then dissolve the white of an egg in a sufficient quantity of distilled water to make four fluid ounces of solution, filter and mix with the above solution.

Fifteen minims of this solution contain about gr.  $\frac{1}{12}$  of corrosive sublimate. Inject hypodermically  $\mathfrak{M}\mathfrak{xv}$  twice a day; i. e., gr.  $\frac{1}{8}$  of the corrosive sublimate a day.

This chloro-albuminous solution has, according to the author, the advantage of avoiding the local accidents which sometimes occur from injecting a dose a little too strong of corrosive sublimate.

The hypodermic injection should be made by a syringe in wood or vulcanized rubber.

## MORPHIA.

1677. R. Morphiæ acetatis, gr.x  
 Acidi acetici,  $\mathfrak{m}\mathfrak{j}$   
 Aquæ, q. s. ad. f.ʒj  
 Liquoris potassæ,  $\mathfrak{m}\mathfrak{j}$ . M.  
 One minim = gr.  $\frac{1}{8}$ .

PLETZER uses the following solution :—

1678. R. Morphiæ acetatis, gr.iiij  
 Aquæ destillatæ, f.ʒj. M.  
 Five minims = gr.  $\frac{1}{4}$ .

Dr. E. LORENT, of Bremen, uses these formulæ :—

## SOLUTION No. 1.

1679. R. Morphiæ acetatis, ʒj  
 Aquæ destillatæ, f.ʒj. M.  
 Six minims = gr.  $\frac{1}{4}$ .

## SOLUTION No. 2.

1680. R. Morphiæ acetatis, ʒj  
 Aquæ destillatæ, f.ʒij. M.  
 Six minims = gr.  $\frac{1}{2}$ .



## SOLUTION No. 3.

1681. R. Morphiae acetatis, gr. xxx  
 Aquæ destillatæ, f. 3j. M.  
 Six minims = gr. iss.

## DR. ALBERT EULENBURG.

1682. R. Morphiae muriatis, gr. iv  
 Acidi muriatici, gtt. iv  
 Aquæ destillatæ, f. 3j. M.  
 Three minims = gr.  $\frac{1}{3}$ .

The objection to this solution is its *acidity*, which often provokes pain and local irritation.

## PROF. ROBERTS BARTHOLOW.

1683. R. Morphiae sulphatis, gr. xvj  
 Aquæ destillatæ, f. 3j. M.  
 Dissolve and filter. Five minims = gr.  $\frac{1}{3}$ .

The advantage of this solution is that it contains no acid, and pure water causes very little irritation.

## REMARKS ON THE HYPODERMIC USE OF MORPHIA.

*Dose.*—The dose is variously given by different authorities. The age, sex, constitution, temperament, and the nature of the disease, all, of course, influence the amount of each injection, as well as the frequency of administration. Drs. E. LORENT and SCHOLTZ have used as high as gr. iss at a single injection.

Dr. BARTHOLOW varies the dose from gr.  $\frac{1}{12}$  to gr. ss. He says that "*in commencing it should not exceed one-third of that ordinarily administered internally.*" He regards the large doses (gr. ss,  $\frac{3}{4}$  and j) as unsafe for the first trial, unless the conditions requiring the injection be exceptional. Dr. RUPPNER places the minimum dose at gr.  $\frac{1}{3}$ , the maximum at gr.  $\frac{3}{4}$ . Dr. EDWARD JOHN TILT says that the initial dose for a woman should never exceed gr.  $\frac{1}{3}$ . Dr. CHAS. HUNTER, of London, gives the rule never to use in the first injection more than one-half the stomachic dose for males, and not more than a third for females.

*Therapeutics.*—Morphia is used hypodermically in neuralgia, delirium tremens, hysteria, epilepsy, insomnia, chorea, tetanus, hydrophobia, asthma, catarrh, emphysema, pleurisy, dyspepsia, cholera, colic, vomiting of pregnancy, urinary affections, and as an antidote to the toxic effects of atropia, strychnia and digitaline. Dr. BARTHOLOW considers it inferior in strychnia poisoning to the calabar bean, and in poisoning by digitaline as less efficacious than atropia.

*Cautions.*—Dr. NUSSBAUM has forcibly indicated the danger that



may arise from the penetration of a superficial vein by the point of the syringe. His experience may serve to put physicians on their guard against a fearful danger. He observes: "During the last two months I have undergone a frightful experience twice in my own person, and three times in the case of my patients. The point of the syringe entered a subcutaneous vein, and the morphia was thus injected directly into the blood, instead of into the subcutaneous tissue. On the first occasion I injected two grains of acetate of morphia,\* dissolved in fifteen minims of water, into one of my subcutaneous abdominal veins, and felt as if I should die in a few minutes. In a couple of seconds there was a pricking and burning sensation over my whole body, a strongly acid taste in my mouth, my whole face was nearly as red as the normal color of the lips, and in about four seconds after the injection there was a ringing sound in the ears, while scintillations flashed before the eyes, and there was intense pain in the integuments of the head. But the most terrible of all the phenomena was the extremely powerful and rapid action of the heart. Out of more than 25,000 patients, I have never felt such a pulse. Its beats ranged from 160 to 180 in the minute, while the carotids had no time to discharge their contents, and felt like thick tremulous iron cords on either side of the neck. The action of the heart and arterial pulsations were so strong that I felt as if the walls of the chest or the diaphragm must give way, and that my eyeballs must burst. This fearful state, in which the respiration was considerably impeded, lasted on the first occasion about eight minutes. The suffusion of the face was followed by a deadly pallor, which lasted for an hour, while the acute pain in the head subsided in fifteen minutes. The mind was in no degree affected, and with an effort I could stand and speak. Cold applied in the form of washing, affusion, etc., was very agreeable and beneficial. In the course of two hours, the whole of the symptoms disappeared. In my other personal misadventure the symptoms were far less severe, in consequence of the injected dose being much smaller. Taught by experience, I have since then always injected very slowly, and as the phenomena come with such lightning-like rapidity, I thus secure time, if necessary, to reverse the pumping action of the syringe and to recover a part of the injected fluid mixed with blood. I have on several occasions seen the happy results of this manipulation. The three of my patients in whom a vein was entered were in even a more critical state than I personally was. There was a partial loss of consciousness, and there were convulsions, but no persistent consequences ensued."

\*This would have proved a highly dangerous dose to most persons if simply injected into the subcutaneous tissue.



## NICOTIA.

DR. A. ERLÉNMEYER.

1684. R. Nicotiæ,  
 Aquæ destillatæ, gr. ss  
f. ʒij. M.  
 Four minims = gr.  $\frac{1}{60}$ .

*Dose.*—Gr.  $\frac{1}{60}$ .

*Therapeutics.*—Prof. HOUGHTON, of Dublin, has employed this agent with success in cases of traumatic tetanus, of which about one-half the cases treated recovered. Nicotia is a physiological antagonist to strychnia.

## PHYSOSTIGMA.

PROF. ROBERTS BARTHOLOW.

1685. R. Extracti physostigmæ,  
 Aquæ destillatæ, gr. ij  
f. ʒj. M.  
 Filter. Ten minims = gr.  $\frac{1}{4}$ .

This solution must be prepared when wanted, as it soon becomes unfit for use. Its acidity should be neutralized by carbonate of soda.

## REMARKS ON THE HYPODERMIC USE OF CALABAR BEAN.

*Dose.*—gr.  $\frac{1}{4}$  of the extract to begin with.

*Therapeutics.*—Tetanus and chorea have both been treated with success by this remedy. In the first-named affection, it probably stands at the head of all known remedial agents. It is also employed in *strychnia poisoning*.

Dr. ALOIS MONTI, of the St. Ann's Child's Hospital, reports three cases out of five of *trismus neonatorum* cured by this remedy. He prefers subcutaneous injection, as he thinks the internal use uncertain. He repeats these injections every ten or fifteen minutes until the spasms cease; then intermits them, even for several hours, until the cramps return again. For new-born children he uses one-tenth grain of the extract per dose, and goes up to one-third, one-half, or a whole grain a day. Older children can commence with one-third grain per dose. For internal use, from one to four grains a day may be given.

The *antidote* to physostigma is strychnia, which is its physiological antagonist.

## QUINIA.

## FORMULÆ FOR THE SOLUTION.

PROF. ROBERTS BARTHOLOW, CINCINNATI, OHIO.

1686. R. Quiniæ sulphatis,  
 Acidi sulphurici diluti,  
 Aquæ destillatæ, ʒj  
m̄xl  
f. ʒj. M.  
 Give 15 to 30 minims. Carefully filter.



Inject where the areolar tissue is abundant.

1687. R.	Quiniæ, Ætheris,	gr.viij f.ʒj.	M.
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DR. DESVIGNES.

1688. R.	Quiniæ, Acidi nitrici diluti, Aquæ destillatæ,	gr.iss m̄j m̄xv.	M.
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For one injection.

Our author has treated several hundred cases of intermittent fever with this injection.

DR. ADDINELL HEWSON, PHILADELPHIA.

1689. R.	Quiniæ sulphatis, Aquæ destillatæ, Acidi sulphurici diluti,	gr.iiij f.ʒj q. s.	M.
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To make a neutral solution. Ten gtt. = gr.ss.

Two cautions should be noted, *i. e.*, to have this solution *neutral*, and to have it *freshly made*. If these be observed, there is no danger of the formation of an abscess from its use. Ten drops may be thrown under the skin three times a day. Dr. HEWSON has employed this injection as a tonic in bad cases of typhoid fever with signal success. He has also found it valuable in breaking up obstinate intermittents, when the ordinary treatment by the mouth failed.

#### REMARKS ON HYPODERMIC USE OF QUINIA.

In the intermittent fever arising from malaria, the hypodermic injection of quinine is a preëminently successful mode of treatment. Dr. SCHACHANA, of Smyrna, states that a single application suffices to effect a cure, good diet and chalybeates being also prescribed. Out of one hundred and fifty cases there was only one relapse. Dr. GUALLA, of Brescia, similarly treated forty-nine cases without a single failure. Dr. DESVIGNES treated several hundred cases occurring in natives engaged on railway work in the Tuscan salt marshes, and met with uniform success. Dr. EULENBURG injected quinine in eleven cases of intermittent fever, and confirms the view propounded by previous observers, that this medicine, when injected in doses of one and a half or two grains before or during the cold stage, has the power of cutting short the attack. Five of his eleven patients complained of a sharp, burning pain while the fluid was being injected, and for some minutes subsequently.

In his remarks upon "intermittent and remittent fever, independent of malaria," Dr. EULENBURG states that he convinced himself by many accurate observations that "by the subcutaneous injection of small



quantities of quinine, we are able in a great number of febrile states of a remittent or intermittent type to produce a temporary, and frequently a considerable, diminution of the febrile temperature of the body." This fact, which he clearly proves by numerous cases, obviously has an important bearing upon the treatment of various forms of disease. In cases of typical neuralgia (sciatica and tic) this remedy has been highly serviceable, and especially so in sunstroke.

## STRYCHNIA.

PROF. ROBERTS BARTHOLOW, CINCINNATI.

1690. R. Strychniæ sulphatis, gr.ij  
 Aquæ destillatæ, f.3j. M.  
 Five minims =  $\text{gr.}\frac{1}{48}$ .

DR. E. A. ERLÉNMEYER.

1691. R. Atropiæ sulphatis, gr.j  
 Aquæ destillatæ, f.3ij. M.  
 Five minims =  $\text{gr.}\frac{1}{24}$ .

DR. ALBERT EULENBURG, BERLIN.

1692. R. Strychniæ sulphatis, gr.ij  
 Aquæ, f.3ij. M.  
 One minim =  $\text{gr.}\frac{1}{60}$ .

DR. WALDENBURG.

1693. R. Strychniæ sulphatis, gr.ij  
 Glycerinæ, f.3ss  
 Aquæ destillatæ, f.3iss. M.  
 One minim =  $\text{gr.}\frac{1}{60}$ .

All these solutions become unfit for use if kept long on hand.

## REMARKS ON THE HYPODERMIC USE OF STRYCHNIA.

*Dose.*—This alkaloid has been employed in various doses, thus:—NEUDORFER,  $\text{gr.}\frac{1}{40}$ ; ECHEVERRIA, of New York,  $\text{gr.}\frac{1}{60}$ — $\frac{1}{30}$ ; CHARLES HUNTER,  $\text{gr.}\frac{1}{90}$ — $\frac{1}{24}$ ; BARTHOLOW,  $\text{gr.}\frac{1}{48}$ — $\frac{1}{24}$ ; WALDENBURG and DELBEAU,  $\text{gr.}\frac{1}{10}$ ; EULENBURG and BOIS,  $\text{gr.}\frac{1}{8}$ ; COURTY,  $\text{gr.}\frac{1}{8}$ ; RUPANER,  $\text{gr.}\frac{1}{24}$ — $\frac{1}{8}$ ; LORENT,  $\text{gr.}\frac{1}{25}$ — $\frac{1}{10}$ .

## ANTIDOTE FOR STRYCHNIA POISONING.

The *calabar bean* (F. 1684) is a complete antagonist to the toxic effects of strychnia. In its absence, the inhalation of ether, successfully employed by Dr. ECHEVERRIA, may be resorted to. Dr. EULENBURG mentions a case that occurred at Königsburg, in which a young man who had taken one gramme and a half of strychnia was apparently saved by the hypodermic application of *woorara*.



*Therapeutics.*—The subcutaneous injection of strychnia is principally used in cases of paralysis and neuralgia. ANSTIE commends it as the remedy *par excellence* in *gastralgia*, injected in doses of gr.  $\frac{1}{20}$ – $\frac{1}{60}$ . Dr. EULenburg has found it (in doses of  $\frac{1}{25}$ – $\frac{1}{26}$  of a grain of the sulphate) highly valuable in cases of facial paralysis, paralysis of the vocal cords, paralysis of the bladder, prolapsus, spinal paraplegia, spasmodic muscular contractions, amaurosis and sciatica.

#### WOORARA.

DR. SCHUH, VIENNA.

1694. R. Woorara,	gr. j	
Alcoholis,	gtt. clx.	M.
Eight minims = gr. $\frac{1}{20}$ .		

*Dose.*—This may be said to vary between gr.  $\frac{1}{60}$  and gr.  $\frac{1}{20}$ . SPENCER WELLS has injected as much as gr.  $\frac{1}{2}$  at one time. GHERINI had gr. ij dissolved in f. ʒij aquæ destillatæ, and injected the solution in twenty-four hours.

*Therapeutics.*—*Tetanus* is the disease for which woorara has been chiefly used subcutaneously. It has also been administered in *epilepsy*.

### IV. INHALATION, FORMULÆ AND DOSES OF MEDICINES FOR.

The doses are calculated for an ordinary steam atomizer.

1695. R. Acidi carbolici fluidi, gtt. iij–x to aquæ f. ʒj.  
In phthisis.

1696. R. Acidi tannici, gr. j–xx to aquæ f. ʒj.

In chronic catarrhal affections, œdema of glottis, and laryngeal ulcerations. In ordinary laryngitis and in bronchitis, begin with small doses, and discontinue if much heat and dryness be produced (DA COSTA).

1697. R. Aluminis, gr. v–xxx to aquæ f. ʒj.

Particularly useful in cases of excessive secretion from bronchi (DA COSTA). In large doses employed in pulmonary hemorrhage. More sedative and better suited to irritable conditions than tannin.

1698. R. Ammoniaë muriatis, gr. ij–ʒij to aquæ f. ʒj.

To promote expectoration in acute and chronic laryngeal and bronchial catarrh, and in capillary bronchitis. SIEGLE says the dose best borne is not above gr. x–f. ʒj.



1699. *Aquæ destillatæ*, f.3j.  
 Warm in inflammatory and spasmodic affections; cold in hemorrhage.
1700. *R. Aquæ amygdalæ amaræ*, f.3j.  
 A sedative in painful affections of upper air passages and paroxysmal cough.
1701. *R. Aquæ assafœtidæ*, f.3j.  
 Used in asthma with emphysema.
1702. *R. Aquæ calcis*, f.3j.  
 In diphtheria and membranous croup.
1703. *R. Aquæ picis liquidæ*, f.3j-ij to aquæ f.3j.  
 In offensive bronchial secretions; in gangrene of the lungs; and in tuberculosis.
1704. *R. Argenti nitratis*, gr.j-x to aquæ f.3j.  
 In ulcerations and in follicular pharyngitis a face shield always to be worn. The largest dose in cases of ulceration.
1705. *R. Atropiæ sulphatis*, gr. $\frac{1}{40}$  to aquæ f.3j.  
 A dangerous inhalation.
1706. *R. Cadini olei*, gtt.j-ij to aquæ f.3j.  
 In the chronic catarrh of emphysema.
1707. *R. Cannabis indicæ extracti*, gr. $\frac{1}{4}$ -j to aquæ f.3j.  
 In spasmodic and irritative coughs; phthisis.
1708. *R. Cannabis indicæ tincturæ*, ℥v-x to aquæ f.3j.  
 Uses: same as of extract.
1709. *R. Conii extracti*, gr.j-xj to aquæ f.3j.  
 In irritative coughs and in asthma.
1710. *R. Conii extracti fluidi*, ℥iij-vij to aquæ f.3j.  
 Used for the same purposes as above.
1711. *R. Cupri sulphatis*, gr.j-xx to aquæ f.3j.  
 In chronic inflammations and ulcerations.
1712. *R. Ferri lactatis*, gr.j-ij to aquæ f.3j.  
 In anæmia.
1713. *R. Ferri chloridi*, gr.ss-ij to aquæ f.3j.  
 In the earlier stages of phthisis and in hysterical aphonia. To be used stronger in chronic pharyngitis and laryngitis. In pulmonary hemorrhage, gr.ij-x to aquæ f.3j; or,
1714. *R. Ferri sulphatis liquidæ*, ℥x-xl to aquæ f.3j.  
 In pulmonary hemorrhage.
1715. *R. Hyoscyami extracti*, gr. $\frac{1}{8}$  to aquæ f.3j.



In whooping cough and spasmodic coughs. The strength of this solution may be gradually increased. The *fluid extract* may be used in doses of ℥iij- $\times$  to f.℥j.

1716. R. Iodinii tincturæ, gtt.j- $\times\mathbf{x}$  to aquæ f.℥j.

In inflammatory affections of the larynx and pharynx.

1717. R. Iodinii liquoris compositi, ℥ij- $\mathbf{xv}$  to aquæ f.℥j.

In chronic bronchitis and in phthisis.

1718. R. Liquoris potassæ arsenitis, ℥j- $\mathbf{xx}$  to aquæ f.℥j.

Nervous asthma.

1719. R. Liquoris sodæ chloridi, f.℥ss-f.℥j to aquæ f.℥j.

In phthisis and in the offensive and copious expectoration of chronic bronchitis.

1720. R. Morphiæ acetatis, gr.ss- $\frac{1}{2}$  to aquæ f.℥j.

In irritative coughs, and for its constitutional effects.

1721. R. Opii extracti, gr. $\frac{1}{4}$ -ss to aquæ f.℥j.

Used for the same purposes as F. 1619.

1722. R. Opii tincturæ, gtt.iiij- $\mathbf{x}$  to aquæ f.℥j.

Employed for the same affections as F. 1619.

1723. R. Plumbi acetatis, gr.iiij- $\mathbf{x}$  to aquæ f.℥j.

In obstinate, troublesome colds, not yielding to other medicament.

1724. R. Potassæ carbonatis, gr. $\mathbf{x}$ -℥ij to aquæ f.℥j.

Same as ammoniæ murias. Particularly useful in follicular pharyngitis.

1725. R. Potassæ chloratis, gr. $\mathbf{x}$ - $\mathbf{xx}$  to aquæ f.℥j.

In chronic and subacute catarrhal affections, particularly when there is a feeling of dryness.

1726. R. Potassii bromidi, gr.j- $\mathbf{x}$  to aquæ f.℥j.

In laryngeal croup.

1727. R. Potassii iodidi, gr.ij- $\mathbf{xx}$  to aquæ f.℥j.

In granular inflammations; in chronic bronchitis with emphysema.

1728. R. Salicylici acidi, ℥j-ij to aquæ f.℥j.

In fetid breath, sore throat, etc.

1729. R. Sodii chloridi, gr.v- $\mathbf{xx}$  to aquæ f.℥j.

In phthisis. It promotes expectoration and diminishes sputa.

1730. R. Terebinthinæ olei rectificati, gtt.j-ij to aquæ f.℥j.

In chronic bronchitis, with offensive secretions; bronchorrhœa; gangrene of the lungs.







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